Ecosystem Restoration
in the Rabbit Lake Drainage Basin

Retaining ^{226}Ra and Uranium
Within the Waste Management Area

January 18, 2003

Executive Summary

This final report is the culmination of a 12-year study into the ecology of the Rabbit Lake Drainage Basin, and the behavior of the contaminants in it, primarily U and ^{226}Ra. It incorporates data compiled from 20 years of monitoring water quality in the basin.

The natural processes documented in this report effectively remove uranium, ^{226}Ra and other contaminants from the water column, and sequester them in the lake sediments; with time, the sediments will be further isolated by the gradual terrestrialization of the lakes brought about by semiaquatic and submerged vegetation including the Characeae that are naturally present in the lakes and enhanced in Upper Link Lake.

The ecological characteristics (semi-aquatic and aquatic vegetation identification, limnological and topographical features) of the drainage basin are analogous to those documented in geological studies on the genesis of fluviatile surficial uranium deposits. The existence of these mineral forming (minerotrophic) conditions in the Rabbit Lake drainage basin guarantees the effectiveness of the natural uranium removal process there.

Knowledge gained from this study could provide the basis for an ecologically based decommissioning strategy integrated into institutional control. The natural processes identified in this report, could be further enhanced to increase the natural retention of contaminants and reduce the release of ^{226}Ra. The promotion of terrestrialization and the creation of new Characeaen habitat could be implemented gradually during the life of the Rabbit Lake Operation. Such modifications would not only complete the restoration of an ecologically disturbed drainage basin, but transform it into a dynamic component of an environmentally sound, economical decommissioning strategy.

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1.0 INTRODUCTION

The Rabbit Lake Drainage Basin originally consisted of three lakes; Rabbit Lake, a kettle lake formed during the deposition of glacial drift material, and the two shallow lakes into which it discharged, Upper Link Lake and Lower Link Lake. In 1968 a large uranium deposit was discovered beneath Rabbit Lake. Eldorado Nuclear Ltd, later to become Cameco Corporation, began to dewater the lake and develop the pit in 1972 discharging the sediments and mine slimes into Upper Link Lake, where they formed a delta of 3.4 ha, with an estimated volume of about 3,600 m^3 . Waste rock from the pit, which began operations in 1975, was stored to the north of the pit. ^{226}Ra, mainly emanating from the mine slimes, and uranium, from the waste rock piles was subsequently detected in the water of the basin.

Topography similar to that of the Rabbit Lake Drainage Basin, has been identified as being favourable to the formation of surficial uranium deposits (Culbert, et al. 1984). The basin was therefore examined to determine specifically if such minerotrophic conditions exist there. If these could be identified and understood then it would be possible to promote and maintain them, thereby providing a long term solution for the retention of the uranium.

The basin also contains a natural mechanism for removing ^{226}Ra in the form of the indigenous algal group Characeae, the stoneworts, which accumulate calcium carbonates by means of high pH bands on their cell walls and barium sulphate in their statoliths, organs which direct the algal attachment (rhizoids) toward the sediment. (Wang-Cahill & Kiss, 1995). By the same means, the Characeae capture ^{226}Ra, which belongs to the same elemental group as calcium and barium. Conventional chemical treatment systems similarly employ a high pH environment and barium sulphate precipitation to sequester ^{226}Ra.

A practical, sustainable long term decommissioning scenario for the basin, would take advantage of both its minerotrophic nature and its indigenous vegetation to retain uranium and radium.

Section 2; Background reviews the origins of the study and the involvement of Boojum Research Ltd.

Section 3; Minerotrophic conditions – natural analogs reviews the literature on both the retention of the ^{226}Ra by the Characeae and the minerotrophic retention of contaminants in geological times, comparing conditions under which surficial uranium deposits are formed with conditions in the Rabbit Lake Drainage Basin.

Section 4; The conditions in the Link Lake Drainage Basin describes the key factors governing mineral retention in the basin; that is topography, hydrology and ecology.

Section 5; Minerotrophic Behaviour of the Link Lakes examines water monitoring data, collected since the start of mining in 1975 to ascertain long-term trends in water chemistry in the basin. Contaminant loadings are quantified for both ^{226}Ra and uranium, along with a summary of ecologically relevant time frames, including when the Characeae were either present or absent in the water body, and when changes in flow were imposed in the drainage basin. Concentrations of ^{226}Ra and uranium in sediments and vegetation are documented. The nutrient status of the drainage basin is discussed. Recommendations are made to sustain and optimize the minerotrophic nature of the Rabbit Lake Basin.

Section 6; Conclusions discusses the work to date and looks to the future.

2.0 Background

Water quality stations established in the basin by 1980 not only identified the presence of ^{226}Ra in Upper Link Lake but its decrease and disappearance as the water moved through a muskeg bog and Lower Link Lake. In 1987, Margarete Kalin, president of Boojum Research Ltd, predicted that the cause of this might be indigenous Characae.

As a research associate at the Institute of Environmental Studies, Kalin had undertaken a four-year study of vegetation indigenous to uranium tailings (Kalin, 1980-1986) which had revealed that shoreline vascular plants and algae and pond algae extract radio nuclides from water. Martin Smith, an associate of the company had recently completed a Master's thesis on the nutrient requirements of the Characeae (Smith 1987). Kalin and Smith had proposed, and were testing the idea of using them in the decommissioning of uranium mines (Kalin & Smith, 1985, 1986).

During a site visit in February 1988, Kalin found extensive growths of the Characeae *Nitella flexilis* below the dam and in Lower Link Lake. Boojum was subsequently awarded a contract to define the ecological parameters required to promote the growth of the algal group in the basin and to restore it in Link Lake. This was to become a decade-long evaluation of the minerotrophic characteristics of the basin itself.

3.0 MINEROTROPHIC CONDITIONS - NATURAL ANALOGS

The Rabbit Lake Drainage Basin has many similarities to the Holocenic landforms which contain about 4 per cent of the world's uranium resources. Knowledge about the environments in which surficial uranium was deposited in geologic times can be applied today to create or enhance similar conditions as part of a decommissioning strategy.

In describing surficial uranium deposits in Canada, Culbert, et al. (1984) noted topographic similarities in Manitoba, British Columbia, the Yukon and Nova Scotia. They describe surficial “young” deposits in semi-arid, alpine and permafrost terrain and defined two classes of near surface deposits; lacustrine/playa and fluviatile types. Table 1, originally presented by that study, provides information on the two depositional environments. The Rabbit Lake drainage basin has all of the characteristics of an environment classified as leading to the formation of fluviatile surficial uranium deposits.

Johnson et al. (1987) described in detail surficial uranium deposits in Washington State noting that they are associated with kames, sand and gravel deposits laid down from stagnant ice 13,000 to 15,000 years ago. Beaver activity produced ponds in the out-wash plains of the valley floor some 5,000 years ago. Surface and groundwater discharges in the valley led to the precipitation of uranium in fine-grained, organic sediments ("loonshit") in ponds surrounded by swamps. The Meadow Mine in the North Flodelle Creek is an example of such a deposit.

Wetland plants which receive nutrients from groundwater containing dissolved minerals are said by geologists to be minerotrophic. In a study of minerotrophic wetlands in the mountainous sub-alpine zone of the Rockies, Owen and Otton (1995) documented the types of vegetation, and the hydrological/topographical state of bogs and fens which accumulate uranium in sediments. Of the 145 bogs investigated, 67 showed uranium enrichment. Shallow lakes created by beavers and containing organically enriched sediments, like the Link Lakes, provide an almost ideal environment for the accumulation of uranium.

4.0 CONDITIONS IN THE LINK LAKE DRAINAGE BASIN

The topography of the Rabbit Lake Drainage Basin in 1955, prior to mining, is shown in Figure 1. Rabbit Lake, a kettle lake, received its water from an esker, which represents a groundwater discharge area. Today, waste rock piles are located in this area, as is the open pit, now operated as a tailings management facility using the “pervious surround" concept. Groundwater is pumped to a waste water treatment facility during operation. This report is concerned with the lower portion of the drainage basin starting at the end of the former Rabbit Lake discharge and encompassing the two Link Lakes.

4.1 Land and Lake Areas

The general conditions of the site layout in 1999 are shown schematically in Figure 2. The sub-drainage basin is designated by letters A through E and the total land area of these sub-drainages are given in Figure 2 and Table 2. The Link Lakes discharge into Wollaston Lake at Pow Bay.

The headwaters of the Rabbit Lake Drainage Basin, which originally flowed into Rabbit Lake, cover a land area of 365 ha (Subdrainage A and B). This now flows directly into Upper Link Lake which is segmented by a bedrock outcropping into a 16 hectare area west of the narrows and 7 hectares to the east. The western portion of the lake receives drainage from an additional 221 hectares while the eastern basin drains 74 ha. The floating muskeg bog below Sedimentation Dam covers 4 ha and receives run-off from a further 262 ha. (Subdrainage E1) while Lower Link Lake, covering 22 hectare receives drainage from 262 hectares (Subdrainage E2). The basin then discharges to Pow Bay. In Figure 3, all sampling locations referred to in this report are given, along with the location of the cross-section A-A'.

Lake bottom sediments of the former Rabbit Lake were partially eroded during pit de-watering and washed into Upper Link Lake. The changes in the lake shoreline configuration created by this shift of material and the construction of Sedimentation Dam are shown in Figure 4. The cross-section was constructed using the 1955 aerial photograph (Figure 1) and the elevations determined in 1995. Since the start of mining, the water level of Upper Link Lake has fallen by approximately three feet (based on current head differentials at Sedimentation Dam). The 4800 m^2 area of floating muskeg surrounding the lakes became, as a result, more bottom-bound, and less minerotrophic.

Although the sediment contribution may have altered the shoreline, the differences in water level are more likely due to the pumping of groundwater from beneath the pit and the pervious surround tailings management facility. A groundwater model of the drainage basin, constructed as part of the EIS, indicates that the groundwater contribution to the overall flow in this drainage basin is relatively minor, and possibly has been further reduced by groundwater pumping from beneath the pit and the pervious surround tailings management facility. Thus, when the pit is decommissioned, the water level might rise slightly which could only be beneficial to maintaining the wetland conditions. Infiltration in the drainage basin is assumed to be 6 per cent.

Mine slimes accumulated in Upper Link Lake and formed a small delta of 3.4 ha, with an estimated volume of about 3,600 m^3. This delta is the major source of ^{226}Ra to Upper Link Lake's water, as defined by several internal and external reports listed in Table 1 in Appendix 1.

Interstitial solution samplers or "pore water peepers" were inserted into mine slimes, both covered and uncovered by semi-terrestrial vegetation. These indicated that the ^{226}Ra flux in the uncovered slimes was mainly driven by diffusion and that in areas covered by vegetation the flux was reduced by four times (Kalin & Smith, 1996).

4.2 Surface Hydrology

Residence times of water in different portions of the drainage basin were derived both from measured flow/calculated volumes of the lakes, and from a water balance and are provided in Table 2 along with the land and lake areas of drainage basins C to E. Atmospheric precipitation data, used in the calculation, is from the climatic summary by Senes (1999). Flows were either measured at flow monitoring stations (Airport Road and Sedimentation Dam) or estimated for those periods where flows were not available or where measurements were absent, such as at the Lower Link Lake outflow. Those stations where flow was measured were used to calibrated the estimates derived from the lower portion of the drainage. (Details of the approach taken are provided in *The 1993 Final Report; Ecological Engineering of the Rabbit Lake Drainage Basin: 1988 to 1993 Evaluation Report*). Figure 1, Appendix 1 provides estimated and measured flows.

The combined estimates of the headwaters of the drainage basin entering Upper Link Lake result in a base flow of 26 $l.s^{-1}$. This estimate agrees reasonably well with the measured flows taken at Airport Road between 1987 and 1998, which averaged 22.3 $l.s^{-1}$. The lower values of measured as compared to estimated flows reflect the effects of the pit de-watering. Water is diverted to the mill, treated and directed to the Horseshoe Creek/Hidden Bay drainage system.

The relatively good agreement between estimated and measured flows confirms the validity of the approach taken to arrive at estimates of the theoretical residence times for the lakes in the drainage basin. The differences between the measured and estimated flows increase down-grade in the drainage basin. The measured average flow for Sedimentation Dam in drainage basin D is 34.6 $l.s^{-1}$, compared with an estimated flow rate of about 48 $l.s^{-1}$ (Table 2). Lower Link Lake resists the affects of flow changes in the upper part of the drainage basin, probably because of the retention capacity of the floating muskeg at the Narrows.

The bathymetry of Upper and Lower Link Lakes are presented in Schematic 3. The change in depth close to shore is about 0.5 m. After this initial drop, it remains relatively flat followed by a gradual slope. Gradual lowering of the water level, with concurrent shoreline extensions is therefore feasible for both lakes.

At the start of the study, when contaminant removal processes were not understood as well as they have since become, theoretical residence time was considered a crucial factor in contaminant removal. A literature review of ^{226}Ra in the environment (Appendix 2) subsequently revealed that the chemical/biological mechanisms by which ^{226}Ra is transported from water to sediment is of greater importance, prompting the revisiting of the study's design criteria.

Available data suggests that the rate of contaminant removal by the muskeg remains constant regardless of flow rates. The seasonal flow patterns between 1986 and 1994 were relatively uniform, with peak flows in the spring tapering to a winter low (Figure 5). But since 1994, spring run-off has been slightly reduced at the outflow of Lower Link Lake. During the spring run- off the theoretical residence time in the drainage basin can be expected to be ten times lower, i.e. it would leave Upper Link Lake within 6 day and out of Lower Link Lake within 5 days.

Base flow estimates of the drainage basin are required as a basis for calculating total contaminant loads and their distribution. Moreover, the residence time of water in lakes is an important ecological parameter for free-floating phytoplankton which removes contaminants from the water, which gets collected in part by the underwater meadow. Depending on the water temperature, the turnover time of phytoplankton can be less than a week. Through higher flows, the residence time is shortened, increasing the export of biomass decay products in the form of TSS from the lake which can lead to levels of contamination in excess of guidelines.

So although residence time is important, other compensating factors mitigate its significance. The floating muskeg between the lakes removes contaminants regardless of flow, while algal blooms, resulting from nutrient inputs during peak flows, compensate for the loss of biomass. And, of course underwater meadows which also remove contaminants (discussed in Section 4.4) are not as affected by seasonal flow irregularities as the open water phytoplankton. It would be reasonable to expect that natural contaminant removal processes follow the same principals as chemical treatment plants which perform optimally within a certain range of flow and contaminant loading.

4.3 Vegetation in the Link Lake Drainage Basin

On a global basis, wetlands cover an area ranging from between 5.3 to 8.6 $x10^6$ km^2 (Mitsch, 1994). Wetlands of the boreal region constitute the second largest fraction of global wetlands. The Wollaston Lake Drainage Basin is part of the general vegetation zone of the boreal forest, as classified by Rowe (1972). In the south, the basin is dominated by a coniferous forest, with a floor cover of mosses and low herbs and shrubs, interspersed by extensive lakes, including the Link Lakes, gradually moving in the north towards barren land. The shores of the region's lakes are typically surrounded by muskeg, a semi-aquatic floating vegetation associated with peat lands or bogs. These wetland types are considered an important part of the vegetation cover of the globe, as wetlands play a significant role in the bio-geochemical cycles relating to 'greenhouse' gases.

The Link Lakes should be maintained as a wetland, playing an important role in maintaining, on a local level, the water balance. A brief discussion is presented of both the semi-aquatic vegetation cover and the submerged aquatic vegetation, testifying to the dominance of wetland type plants.

4.3.1 Semi-aquatic Vegetation

The vegetation along the drained shores in Upper Link Lake has all the characteristics of the minerotrophic northern muskeg bogs conducive to surficial uranium deposition. Table 3a lists the species identified on the shores of the Link Lakes and on the Harrison Peninsula. Most of these species reproduce either by seed dispersion or runners (Table 3b). Many can be transplanted by cuttings, which would allow their use in the restoration of shorelines in the basin. As will be discussed later, shoreline restoration measures would be beneficial for the long-term development of the drainage basin.

4.3.2 *Nitella flexilis* Distribution in the Link Lakes

The discovery of *Nitella flexilis*, sampled through the ice on Lower Link Lake in February 1988, gave rise to this project. Extensive populations were present in the lake and in the bogs above and below the beaver dam, but not in Upper Link Lake. In 1989, 12 tonnes fresh weight of *Nitella* from Lower Link Lake were added to Upper Link Lake. The Nitella populations in both lakes has been monitored ever since as reported in internal Cameco reports (Table 1, Appendix 1).

Upper Link Lake (Schematic 1): As noted, *Nitella* oospores have been identified in sediment core strata predating mine development. Sediment from the bottom of Upper Link Lake, taken in August, 1988 by an Eckman grab sampler, contained no signs that the lake had been re-colonized since the start of mine development by *Nitella, Chara* or any other submerged aquatic macrophytes. Re-colonization was likely inhibited because of physical conditions brought about mainly by burial first and high TSS loadings during pit operation, rather than chemical changes in the water.

Growth experiments were performed in the field in 1988 to establish design parameters for the re-introduction of *Nitella* to Upper Link Lake and to gain some insight as to the possible final spatial distribution of *Nitella* following establishment.

In June, 1989 twelve tonnes of *Nitella* were spread over four zones in Upper Link Lake (Delta area, northwest corner, narrows and outflow). Direct examination (diving) of *Nitella* and its coverage of the sediment commenced in July 1989. In 1989, *Nitella* was present in all four transplant zones in 1989, but by September 1990, few plants remained in the transplant areas in the narrows or at the outflow. However, transplanted *Nitella* biomass could usually be located along the delta and northwest corner transects.

This was still the pattern in 1991, 1992 and 1993, when *Nitella* was observed over most of the delta and northwest corner transects. The results of a more extensive distribution survey in 1994, using both direct observation and Eckman dredge techniques, indicated that *Nitella* had spread throughout the lake above the narrows, wherever water is less than 2 m deep and the substrate is sand, silt or gyttja. However, very little *Nitella* was recovered by Eckman in the deeper portion of the lake below the narrows where the bottom is generally rocky.

Direct observation along the delta and northwest corner transects in 1996 and 1997 showed good coverage by *Nitella*. The results of the combined Eckman and direct observation data for 1998 indicate that the *Nitella* population had finally begun to establish in areas below the narrows. However, another direct observation survey in 1999, and the Eckman survey in 2000, collectively indicated that the Upper Link Lake *Nitella* distribution has declined most notably in the southern half of lake above the narrows.

<u>Lower Link Lake (Schematic 2):</u> In 1988, an Eckman survey identified a dense population of *Nitella flexilis* covering most of the bottom of Lower Link Lake between depths of 0.6 m and 1.9 m, the upper limit determined by the maximum depth of freezing and the lower limit the point at which light attenuates by 95%. The population was particularly luxurious at the west end of the lake, where the lake depth is optimal for growth.

Further Eckman surveys in 1990, 1991, 1992 and 1993 monitored the complete collapse of the population - by 1993 no *Nitella* could be found in the lake. This may have been the result of water level decrease of at least 0.5 resulting from the collapse of a beaver dam noted during an April, 1991 site visit.

The large input of decaying biomass in the subsequent years may also have slowed the recovery of the population. Fertile oospores were abundant in the sediments - they germinated well in the laboratory with tap water - but may have been inhibited in Lower Link Lake, by high concentrations of ammonia in the sediments, a byproduct of the decaying biomass that remained in the lake. This work was documented in progress reports in 1992, listed in Table 1, Appendix 1.

However, by September, 1996 a rake survey indicated that recovery of the *Nitella* population had begun. Subsequent rake surveys in 1998, 1999 and 2000 all indicated that *Nitella* was again spreading throughout the lake. However, overall density and spatial distribution remain less than observed in 1988.

4.3.3 Charophyte Distribution Control

Casanova (1994) described the response of Characeae to water level fluctuations in permanent and temporary wetlands. The species *Chara australis* responds to fluctuations by generating more female than male shoots and he found that growth rates increase with the return of deep water. The response of *Nitella sonderi,* however, was not as strong. The author concluded that although the response to water level appears to be somewhat species specific, life history may be more important in determining vegetative and reproductive characteristics. This indicates that the kill of *Nitella flexilis* in Lower Link Lake, was likely due to scouring and ice damage in periods of extreme low water but not directly by the change in water level itself; the same process of bottom-bound ice formation at depths less than 0.6 m prevents the year-round colonization of the Delta by *Nitella*. The Characeae, in other words, are well adapted to water fluctuations. This is also supported by the findings on other species of the Characeae.

Howard-Williams et al. (1995) quantified the effects of water level manipulation, due to hydroelectric power generation, on submerged aquatic macrophytes including *Chara corallina*, a Characeae species in a lake in New Zealand, able to grow to depths of 16 m, to the precise lowermost edge of the littoral zone. The shoreline underwater vegetation (littoral zone), consisted of vascular species as is the case in Lower Link Lake. *Chara corallina* was not affected by frequent 3 m fluctuations in water level but the authors warned that light restrictions, due to the extensive overgrowth by epiphytic algae could limit growth in the deepest portions of its range.

Light penetration was measured in the Lower Link Lake system using a photometer and water clarity was measured with a Secchi disc (Figure 6a). During distribution surveys conducted for the past 13 years, *Nitella* has never been recovered from depths greater than 1.9 m in Lower Link Lake. This depth is equivalent to a quantum flux of less than 100 $\mu E.m^{-2}.s^{-1}$, or about 95 % light attenuation compared to flux at the lake surface. While Upper Link Lake's Secchi depth is much shallower (1.3 m) 95 % light attenuation occurs in the uppermost 1.7 m, about 0.2 m less than Lower Link Lake (Figure 6b). The reduced clarity in Upper Link Lake was probably the result of high TSS values due to cyanobacterial blooms.

In summary, the range of *Nitella* in the Link Lakes is determined by water clarity and bottom-bound ice which determine the upper and lower depths to which it will grow. Both are important factors in the management of the *Nitella* population as a polishing agent, and are factors which need to be considered in the management of the drainage basin to maintain the *Nitella* population.

4.3.4 Phytoplankton and Periphyton

The ecological status of a drainage basin is not only manifested in the dominant accumulator species such as *Nitella flexilis*, but by other components of the aquatic ecosystem, namely mat-forming and free-floating phytoplankton. Since these also adsorb elements, their elemental concentrations have been determined.

Samples from Upper and Lower Link Lake were collected not periodically from 1989 to 1995 as a means of identifying the phytoplankton community. Upper Link Lake is prone to algal blooms in the late summer/early fall, affecting both light penetration in summer and dissolved oxygen concentrations during winter, characteristics of highly eutrophic water. Algal blooms are frequently a response to nutrient changes.

Although the dataset is not fully representative of species diversity in the lakes, it is adequate for a comparison of the numbers of genera in Upper and Lower Link Lake. The average number of genera/species recorded in a sample is 19, with a standard deviation of 8.62 (Figure 7). The number of genera/species in Upper and Lower Link Lake are comparable, for the three sampling periods (1989, 1991 and 1995) where data are available.

Table 4a quantifies the occurrence of periphytic algae, the dominant algal group in the Link Lake system. The sample set was collected from 1989 to 1995 for taxonomic identification. The dominant algal taxa which grow in mat or attached forms are *Oscillatoria*, (recently renamed *Planktothrix,*) *Mougeotia*, *Tabellaria* and *Nitzschia*. These genera are present in at least 45% of the samples.

Of the periphyton genera most common in the Link Lake system, *Mougeotia* and *Oscillatoria* (Table 4a) are known as weedy species, and hence tolerant to many conditions of water. It is therefore not surprising to find these as the dominant group of periphyton along with the Characeae.

The phytoplankton, the free-floating algae listed in Table 4b appear frequently, in 45 to 100 per cent of samples. Fourteen genera permanently reside in the Link Lakes. The phytoplankton genera/species are typical for eutrophic waters with light limitations, a common phenomenon in bog/muskeg type waters, and to be expected in the Link Lakes where periphyton dominates.

Phytoplankton communities in ^{226}Ra- and U-contaminated waters are poorly, if at all, reported in the literature. In 1997, St-Cyr et al. published a summary of the literature on the general tolerance of phytoplankton species to metals in which three genera common to the Link Lakes are listed as "resistant"; *Scenedesmus,* a periphytic genera occurs frequently while the phytoplankton taxa *Euglena* and *Synedra*, are among the 14 most common genera in the Link Lakes (Table 4b).

However, *Asterionella, Cryptomonas, Staurastrum,* and *Tabellaria*, all among the most common group of phytoplankton in the Link Lake system, are listed in the same review article as being "sensitive" indicator species. In the Link Lakes, all four species are clearly tolerant of contaminants. *Dinobryon*, present in 47 % of the Link Lake samples, has variously been reported as being sensitive and resistant.

The drainage basin is colonized by primarily benthic/periphytic algae, typical for shallow lakes and ponds with strong sediment-water interactions. Both periphyton and phytoplankton are reported as environmental indicators for healthy and for stressed waters. Algal species as indicators of environmental stresses in mine waste waters are discussed in detail in Cao and Kalin, l999).

4.4 Water Characteristics in the Drainage Basin

In the Rabbit Lake drainage basin, water quality has been monitored at 8 locations since l980, not all of them with the same frequency or for the same parameters, covering a range of N = 12 to N = 140. Eight parameters and six sampling stations, compiled over a period of 18 years are represented (Table 5a) Such a large data set provides useful information on the long term water quality trends in the drainage basin, when analyzed with statistical methods. In Appendix 3 the long-term trends of ^{226}Ra and uranium are analyzed in detail and discussed in relation to the parameters which influence these contaminants

The parameters which influence these contaminants were found to be pH as it affects carbonate precipitation formation and its solubility, bicarbonate concentration itself, electrical conductivity and TDS as they affect concentration gradients (flux) between sediment and lake water, and sulphate (expressed as S) which is required (along with nutrients) by sulphate reducing bacteria. A detailed discussion on ^{226}Ra and its movement in the environment is provided in Appendix 2.

In this section, water quality is discussed addressing two aspects; firstly, the overall long-term water quality and trends within the drainage basin which can be substantiated statistically (Section 4.4.1) and secondly, water quality after reduction of flow in the drainage basin by about 20 % due to the diversion of the water from the drainage basin to the in-pit treatment facility (Section 4.4.2).

4.4.1 Long-term water quality trends

A well defined, statistically significant gradient was found for ^{226}Ra over the eight monitoring stations, decreasing downstream with the exception of Station W14, at the Narrows in Upper Link Lake. Concentration gradients were also clearly defined for uranium. As the two contaminants enter the drainage basins at different points, the locations at which their trends can be statistically substantiated are different.

Such a difference is to be expected, as the geochemical characteristics of the two elements differ. Hence removal processes of these contaminants are operative at different locations within the drainage basin. Uranium concentrations decrease significantly between W3 (the waste rock pile) and W25 (Lower Link Lake outflow). In contrast to ^{226}Ra, uranium showed long-term increasing trends at a number of locations. A detailed discussion of this is provided in Cao, Y. and Kalin, M. (1999) (Appendix 3).

Table 5a (Appendix 3) contains data used in the statistical analysis of long-term water quality trends, including only the stations located in the lower part of the drainage basin W5 (Airport Road,1987 to 1997); W9 (Delta Inflow, 1988-1998); W14 (ULL at Narrows, 1986 to 1998); W15 (Sedimentation Dam, l987 to 1998); W20 (Bog above the beaver dam, 1988-1998); and finally W25 (Lower Link Lake outflow, 1980 to l998).

Data from most stations spans 10 years, but nearly 20 years for the Lower Link Lake stations. The locations of the sampling stations are shown in Schematic 3. It should be noted that Station W5 is the closest to the headwaters of the basin, and hence is the most greatly affected by seepage from the North Waste Rock Pile and the West Waste Rock Pile.

Table 5a provides the number of samples, the monitoring period and minimum and maximum values of pH, conductivity, values of ^{226}Ra and uranium, bicarbonate, sulphur, TSS and TDS for each station. These long-term averages are discussed with respect to the land-form and its potential influence on contaminant concentration. For this discussion, the long-term data set is used, excluding the last two years, as long-term trends are more relevant for the overall behavior of the drainage basin. When the site is eventually decommissioned, and treatment plant facilities are gradually phased out, the minerotrophic behavior of the drainage basin, will reassert itself.

Drainage between Stations W5 and W9 is by means of a ditch. Some reduction in solute concentrations is evident, due partly to dilution from base flow and partly to the vegetation on the upper portion of the mine slime delta upgrade from just upstream of W9. The next monitoring station is located at the Narrows in Upper Link Lake (W14). Data from W14 registers the contribution of weathering products from mine slimes in the delta. Base flow from the sub-drainage area D (5.3 $l.s^{-1}$ as compared to the cumulative flow of 42 $l.s^{-1}$ at the Narrows, Table 2) could reduce solute concentrations before the water reaches Sedimentation Dam (W15).

No major differences in the landscape occur between Station W14, located above the Narrows in Upper Link Lake, and Station W15, located at Sedimentation Dam. The flow at Station W15 represents the combined flow of the upper and lower portion of the lake. No changes are noted between the two stations in any of the parameters as would be expected. Monitoring Station W14 was likely installed during the investigations of the origin of the ^{226}Ra and is now redundant. Similarly, W9 may no longer be required as the TSS contribution from ditch erosion, during heavy rain or run-off events would be captured by W15.

Down grade from Station W15, the water flows through a dense muskeg/wetland area (E1), where a base flow of 19 $l.s^{-1}$ is added to the flow of 48 $l.s^{-1}$ at Station W15 (Table 2). Sampling Station W20, located in the bog above the beaver dam, is in the upper portion of drainage basin E1 (Figure 2), up grade from the main inflow of this drainage basin. Therefore, only about half of the 19 $l.s^{-1}$ base flow from sub-drainage area E1 (about 10 $l.s^{-1)}$, would be added to the flow leaving Sedimentation Dam. Concentration reductions at sampling Station W20 (lower in the bog muskeg bog area) would be expected to be 25 per cent of those leaving W15 (Table 2) due to dilution.

The pH values of this drainage basin are generally neutral to alkaline, but relatively high pH values are generated in summer due to algal productivity. Changes in electrical conductivity, brought about by the seasonal variation of run-off entering the system, are reflected in a large range of TDS values (Total Dissolved Solids). Highest average values for both parameters are reported for the ditch (W5), which collects water from the upper part of the drainage basin. These average values decrease as the water enters the pond between Upper and Lower Link Lake, and remain constant as the flow passes through the muskeg and Lower Link Lake. Particulate matter, measured as TSS (Total Suspended Solids) is generally lower in the lakes. Narrow channels which have formed in the delta inflow area at Station W9 and the muskeg area at W20 are products of scouring during run-off events, a process which likely contributes to the large range of TSS values. Bicarbonate, sulphate and TDS values of the water represent background for the area. They do not change in their average concentration value and the ranges of these parameters are very similar throughout the drainage basin.

^{226}Ra originating in the waste rock piles passes W5 with an elevated average concentration of 0.26 Bq.l$^{-1.}$ Concentrations decrease slightly to 0.24 Bq.l^{-1} at W9, just prior to entering Upper Link Lake. Water quality at Station W14 reflects a ^{226}Ra input from the mine slime delta; the ^{226}Ra concentration averages 0.41 Bq.l^{-1} (Table 5a). At Sedimentation Dam, at Station W15, the ^{226}Ra concentrations decreased slightly to 0.36 Bq.l^{-1}

As the water passes through the muskeg/wetland area below Sedimentation Dam, the average concentration of ^{226}Ra is reduced by about 50 per cent to 0.2 Bq.l^{-1}. This occurs prior to the addition of dilution from the expected base flow and within the short retention time, in this segment of the basin, of approximately 4 to 5 days (Table 2). In Lower Link Lake, the average ^{226}Ra concentration is further reduced to 0.1 Bq.l^{-1}. It would appear, therefore, that the muskeg/wetland significantly reduces ^{226}Ra concentrations. That reduction let to the initiation of this study in 1987 and, it is worth noting, has persisted ever since.

As nothing has been altered in the topography below Sedimentation Dam this trend is not surprising. The only change worth noting in the lower basin, the reduction of the *Nitella* population, will be discussed later.

Although ^{226}R concentrations in the Rabbit Lake Drainage Basin are of concern, they are well within ranges reported in the literature (Table 1, Appendix 2). The reported literature values in surface waters cover a range from 0.0002 to 57.4 $Bq.l^{-1}$ and are well within the range reported for Northern Saskatchewan.

Uranium concentrations appear to behave similarly to those of ^{226}Ra as the water moves through the ditch and the delta to Upper Link Lake. A slight reduction, from an average of 3.2 $mg.L^{-1}$ to 2.6 $mg.L^{-1}$ takes place in Upper Link Lake. At W9, however, uranium concentrations decrease from 2.6 $mg.L^{-1}$ to 1.1 $mg.L^{-1}$ and 1.0 $mg.L^{-1}$ at W14 and W15 respectively. This suggests that the mine slimes contribute only the trace element ^{226}Ra, even though its concentration (1.08×10^{-8} $mg.L^{-1}$) at W15 is small compared to that of uranium (1.1 $mg.L^{-1}$) when expressed in the same units. If the reduced concentration of uranium was a function of a general dilution by additional base flow, it would be noted in the ^{226}Ra concentrations as well, but this is not the case. Average uranium concentrations slightly increase to 1.2 $mg.L^{-1}$ in the muskeg bog area below Sedimentation Dam at Station W20. In Lower Link Lake, a significant reduction in the average concentrations of uranium can be noted (0.3 $mg.L^{-1}$ at Station W25), a fourfold reduction as compared to the 50 per cent reduction of ^{226}Ra.

From a regulatory standpoint, and for the analysis of spatial and temporal trends, differences in concentrations are important. Accordingly, annual average concentrations of ^{226}Ra and uranium (Table 5a) were used to determine trends in water quality. However, multivariate, statistical procedures cross correlations and auto-correlations such as were used to analyze trends in the B Zone Pit (Cao & Kalin, 1999) provide a much more powerful tool and were applied to the Link Lakes. These are discussed in detail in Appendix 3 and summarized in Table 5b which provides statistical results for the two relevant contaminants in the drainage basin for the entire monitoring period from 1987-1998, and for the 6 years from 1993 to 1998. The data for 1997-1998 was statistically tested separately as these were the years that saw the *Nitella* population in Upper Link Lake expand to the extent that it could potentially affect ^{226}Ra concentrations.

The analysis by Cao and Kalin used data from the entire period and all sampling stations, thus larger N or number of samples is available for the test than when the annual average concentrations are used. For this comparison, the Wilcoxon Signed Rank test was used.

The data set for both contaminants is considered for the 'Whole Period' from 1987 to 1998 and for the 'Six Year Period' from 1993 to 1998. These data sets are further subdivided into 'All Data' and 'Annual Averages'.

In the 'Whole Period', 139 samples provide a continuous string of data as compared to the 'Annual Averages' representing 16 data points. In the 'Six Year Period', 'All Data' consists of 61 samplings as compared to 'Annual Averages' representing 5 data points. The results of the statistical analysis of the concentration trends at Sedimentation Dam and at the Lower Lake Outflow, are highlighted in the shaded boxes of Table 5b.

Both 'All Data' and 'Annual Averages' show a statistically significant increase in uranium at Sedimentation Dam. In Lower Link Lake no significant trend for uranium for the 'Six Year Period' is indicated. For ^{226}Ra, there is no significant trend in either 'All Data' or 'Annual Average' at Sedimentation Dam. These findings confirm that as of 1998, uranium discharges from Lower Link Lake had not increased, in spite of an increase at Sedimentation Dam. For ^{226}Ra, the strong agreement between 'All Data' and 'Annual Average' show no increase and suggest that ^{226}Ra has been retained in Upper Link Lake. The two data sets do not agree on the significance of trends for the other data sets.

In summary, statistically significant trends in concentration changes can be observed by some data sets. Of course, statistics taken alone do not prove a phenomenon, but they are a useful tool in substantiating observations. Disagreements, such as are evident in Table 5b, are not unexpected. An annual average does not fairly represent overall characteristics in the year, is strongly influenced by extreme values and may not detect time trends. Differences in results from statistical data processing are expected when the parameters being tested are not normally distributed, as is the case for most water quality parameters. This is discussed in detail in Appendix 3 for the statistically-inclined reader. The appropriate statistical treatments are auto-correlations and cross-correlations, which show very good trends and the relationships between pH and uranium and ^{226}Ra (Appendix 3).

The statistical summary presented in Table 5b highlights important aspects. Firstly, statistically significant trends can be determined in the data set using the entire monitoring period and the six year period of 1993-1998. Secondly, annual averages of contaminant concentrations may not fully reveal the effectiveness of the Link Lakes' *Nitella* population. Ideally, such evaluations would be based on contaminant load measured at the shortest practical intervals to obtain monthly or even daily averages for the respective time periods during which *Nitella* was present or absent in the Link Lakes. The data used to calculate loads are given in Table 13 of Appendix 1.

4.4.2 Recent water quality changes

Table 6 provides monitoring data from October 1998 to December 2000 for the parameters discussed above. It is evident, from those tables, that new factors have begun to affect water quality; water emerging from the waste rock piles has been diverted for treatment and *Nitella* is growing extensively in Upper Link Lake, and has largely recovered in Lower Link Lake. Major reductions, especially in comparison to the

10 year average, are evident in concentrations of uranium, bicarbonate, and sulfur which in turn affects electrical conductivity as well as TDS (Table 5a).

The pH is lower compared to the 10 year average for Airport Road (W5) and Delta inflow (W9) but not at the Narrows (W14). Concentrations of ^{226}Ra however have increased substantially in the upper basin; at W5 the 10 year average 0.26 Bq/l increased to 0.34 Bq/l; at W9 from 0.24 Bq/l to 0.41 Bq/l and at W14 from 0.41 Bq/l. to 0.64 Bq/l (Table 6).

These increases follow the reported chemical behavior of ^{226}Ra which leaches from sediments in response to both reductions in sulphate concentrations in the water and an increased concentration gradient between sediment and water throughout the drainage basin due to lower TDS and conductivity.

It is encouraging that while the diversion of the water has altered those same parameters throughout the basin, presumably bringing about a greater release of ^{226}Ra from the sediment, recent annual averages for ^{226}Ra are lower than the 10 year average. This can only be attributed to the increase in *Nitella*. Pre-diversion, ^{226}Ra concentrations between the Narrows (W14) and sedimentation dam (W15) dropped on average by 0.05 Bq/L; post diversion, the reduction is 0.37 Bq/l. For Lower Link Lake, where *Nitella* was never completely absent, the differences pre- and post-diversion are less pronounced, particularly between W15 and W20 (Table 6). Although these differences have not been not statistically tested, they are pronounced and the causal relationship to *Nitella* population should be reflected in the sediments, particularly those sampled most recently in Upper and Lower Link Lake. Those will be discussed in Section 5.5.3 in detail.

5.0 MINEROTROPHIC BEHAVIOR OF THE LINK LAKES

This section examines contaminant load and its reduction by minerotrophic vegetation in the Rabbit Lake basin. The contaminant load is quantified, combining flow in the drainage basin with the concentrations of the contaminants of concern and is presented for each year and for periods in the drainage basin during which ecological change occurred. Land forms, hydrology and ecology determine the manner in which the contaminants are compartmentalized in soil, water, biota and sediment and/or transported through the system. In the previous sections, the landscape of the drainage basin, its terrestrial and aquatic vegetation and its water quality have been extensively discussed.

In addition, the concentration of uranium and ^{226}Ra in the aquatic biomass, both attached and free floating algae, are presented. Finally the minerotrophic behavior is documented by examining the sediments and the concentrations in them of relevant elements. Concentrations of uranium and ^{226}Ra , accumulated over time and captured in grab samples are examined and core samples are examined with respect to surface and deeper samples. These data provide the foundation for dynamic ecosystem modeling which could serve as a tool to predict the carrying capacity of the drainage basin.

5.1 ^{226}Radium and Uranium Loads in the Link Lakes

As noted, both water flow through the basin (Section 4.2) and the concentrations of contaminants in the water (Section 4.4) have changed over the years in the magnitude in the spring run-off and total volume. Therefore, loads were generated specifically for each year, using flow estimates or actual measurements, and integrating concentrations over the same time periods. Accordingly, contaminant loads, based on those two factors, were calculated for each year. (Appendix 1; Table 13; pages 18 to 148).

5. 2 ^{226}Radium Load

Table 7 gives the average daily ^{226}Ra load estimate of each point in the drainage basin. The differences in loads between Sedimentation Dam and Airport Road are due to the contribution of the mine slimes. It is reasonable to assume that this contribution has not changed over the years, since the physical condition of the Upper Link Lake delta, where the slimes are located, has not changed.

The reduction in ^{226}Ra monitored at the Sedimentation Dam over time can be attributed to the presence of the underwater meadow. The net ^{226}Ra contribution from the Upper Link Lake mine slime delta before the *Nitella* meadow was established was 0.93 M-Bq.d^{-1} (W15 - W5) ; after 1987 - 1992 when the meadow was in place, it was 0.4 M-Bq.d^{-1}, about 0.5 M-Bq.d^{-1} lower. The ^{226}Ra flux from Upper Link Lake has essentially remained the same since diversion of seepage from the West Waste Rock Pile reduced flow into the lake in October 1997; thus load is compared for the period December 1997 to December 2000. The ^{226}Ra flux from the Delta has remained around 0.35 M-Bq.d^{-1}(0.38 - 0.03 M-Bq.d^{-1}) (Table 7 and Appendix 1, Table 2a.)

The comparative reductions in ^{226}Ra in Lower Link Lake, during periods of *Nitella* boom and bust are also of interest. In the 1987-89 period, when *Nitella* thrived in the lake, the reduction in load between inflow to the lake (1.63 M-Bq.d^{-1} at W15), and the outflow (0.5

M-Bq.d^{-1} at W25) was 1.1 M-Bq.d^{-1} or 69% (Table 7). Subsequently, when the *Nitella* population crashed, the ^{226}Ra load entering the lake (1.22 M-Bq.d^{-1}) was lower at the outflow by 0.65 M-Bq.d^{-1} to 0.57 M-Bq.d^{-1}, a reduction of 53 %. In 1997-2000, as *Nitella* re-established itself slowly, ^{226}Ra load reduction has remained fairly low (50%), with a difference of 0.52 M-Bq.d^{-1} at Sedimentation Dam decreasing by half to 0.26 M-Bq.d^{-1} at the outflow of Lower Link Lake.

Figure 8a plots the daily ^{226}Ra loads for each monitoring station in Upper Link Lake for the years 1987 to 2000. Figure 8b plots the loads entering and leaving Lower Link Lake. The general trend is a decreasing ^{226}Ra load at Sedimentation Dam (Figure 8a), starting in 1993 when it was observed that the *Nitella* population in Upper Link Lake had rapidly advanced (Schematic 1).

5.2.1 Time intervals reflecting system changes

In the three years following the diversion of flow in late 1997 from the waste rock pile, the load of ^{226}Ra at both Sedimentation Dam (W15) and the Lower Link Lake outflow has been lower (Figure 8b). To relate changes in load to changes in the drainage basin, the loadings are grouped by the relevant time intervals.

In order to determine the effect of the *Nitella* in Upper Link Lake, the dynamics of the drainage basin have to be considered. Apart from the re-establishment of *Nitella*, with the transplanting activity in four areas, the lake was also affected by the intermittent flow of cooling water and by the diversion of seepages from the waste rock pile. For Upper Link Lake therefore three time intervals are relevant: Before and during the re-establishment of the *Nitella* meadow (Schematic 1) and after the diversion of the waste rock seeps.

Lower Link Lake experienced a different set of dynamics which took place during three discrete time periods; 1987-1989, when *Nitella* was abundant; 1990-1996, when it all but disappeared and 1997-2000, when the population was recovering during a period of reduced flow. Throughout the entire time period, the dense algal and macrophyte community in the bog area below Sedimentation Dam never vanished.

Figures 9a and 9b graphically present summaries of the ^{226}Ra daily loads in the Upper and Lower Link Lakes, respectively, for periods with and without algae, or following seepage diversion (see Table 7 for data). Consistent and substantial ^{226}Ra load reduction by this system has been clearly demonstrated and can, in part, be attributed to capture of TSS and growth of the *Nitella* population and sedimentation by the *Nitella* populations in the lakes. As a summary statement, the same data are presented in Schematic 4 for the Link Lake Drainage Basin for ^{226}Ra,.

5.3 Uranium Load

Uranium is not retained by *Nitella* to the same degree as ^{226}Ra but for consistency, uranium loads are examined for the same time periods. Average daily uranium loadings in $kg.d^{-1}$ at Airport Road, Sedimentation Dam and Lower Link Lake outflow are presented in Table 8 (see Appendix 1, Table 2b).

After *Nitella* was re-established in Upper Link Lake, daily uranium loads diminished by 27 per cent from 3.7 $kg.d^{-1}$ (1987 - 1992) to 2.7 $kg.d^{-1}$.(1994 -Nov. 1997; after the diversion of the seepages from the waste rock pile. (Dec. 1997 - Dec. 2000 a further reduction occurred. The daily uranium load at Sedimentation Dam decreased 59 per cent from 2.7 $kg.d^{-1}$ to 1.1 $kg.d^{-1}$. The uranium entering the lake had been reduced to only 0.03 $kg.d^{-1}$ by the drainage ditch (Figure 10a). The source of the uranium flux was clearly biomass decaying in the water column, not in the sediments. If productivity is too high and the biomass can not sink to the sediments, the adsorbed uranium is re-released. On a field trip early in 1999, extensive algal decay was noted. Late in 2000, however, less algal growth in general was noted. Although these observations are anecdotal, the reduction in uranium sediment flux from 1999 to 2000 supports a link to productivity levels (Figure 10a).

As shown in Figure 10a, this apparent flux of uranium from the sediments and biomass significantly diminished post-diversion (1998). Clearly, the drainage basin responded to the changes resulting from the North Ditch Diversion and in the last few years has been in a state of transition. Phytoplankton/periphyton growth rates may be changing, in the absence of nitrate as a nutrient from the waste rock pile seepage. Irrespective of these changes, however, uranium loads now entering and leaving Upper Link Lake have been greatly reduced.

In the 1987-89 period when *Nitella* was abundant in Lower Link Lake, uranium loads between Sedimentation Dam and Lower Link Lake outflow were reduced by 54 % from 3.3 $kg.d^{-1}$ to 1.5 $kg.d^{-1}$. In the absence of *Nitella*, they decreased by 1.1 $kg.d^{-1}$, or 34 %; in 1997-2000, when the population was rebounding the reduction was with 39 %. *Nitella* does not react directly with uranium but enhances uranium removal by providing structural support for filamentous and free floating algae (epiphytic growth). In the Link Lake system, concentration of uranium in these algae was as high as 0.1 % (Table 11).

Uranium loads at Sedimentation Dam and the Lower Link Lake outflow for the 1987 to 2000 period are presented in Figure 10b. Uranium removal is clearly evident except in the last two years. Factors, similar to those in Upper Link Lake may be operating here. Quite clearly the drainage basin is responding to changes in flow and water chemistry. The system is in a state of transition with loadings decreasing over the last three years.

5.3.1 Time intervals reflecting system change

For the discussion of uranium the same time intervals have been considered as for ^{226}Ra, although it is not expected that the changes defining the intervals should affect uranium behavior so extensively. The average uranium loads presented in Table 8 are displayed graphically in Figure 11a, which uses the same load calculations as before.

This figure clearly shows the release of uranium in Upper Link Lake after the seepage diversion. In Lower Link Lake (Figure 11b), uranium removal is evident for all three intervals prior to discharge to Pow Bay. Schematic 5 provides a graphic presentation for the uranium pathways in the system.

The long-term trends in the monitoring data, summarized here, indicate that the drainage basin is retaining both ^{226}Ra and uranium. The experimental re-introduction of algae into Upper Link Lake was extremely successful and has no doubt greatly improved water quality. But the data also reveals that the greatest improvements to water quality are the result of natural processes, which for the most part are functioning without benefit of optimal ecological management. The response of the contaminant trends to changes in the water regime, particularly the diversion of seepages, underscores the importance of ecological considerations in the management of the entire drainage basin.

5.4 ^{226}Radium and Uranium Concentrations in Biomass

A perspective on the apparently elevated concentrations ^{226}Ra and uranium in the biomass of the Rabbit Lake Drainage Basin can be gained by comparing three sets of biotic data; firstly, concentrations in semi/semi-aquatic and terrestrial vegetation and soil/sediment concentrations; secondly, cconcentrations in *Nitella* and thirdly in phytoplankton and periphyton.

In Table 9 concentrations in semi/semi-aquatic and terrestrial vegetation and soil/sediment concentrations are compared to concentration ranges reported by standard references (Handbook of Trace Elements, Chemical Analysis of Ecological Materials, and CRC Trace Elements in Soils and Plants). The details of the samples, their location and sampling date are given in Appendix 1 Table 6 to 8.

Concentrations of uranium at Rabbit Lake are generally at the high end of the reported literature values for a mineralized area with a minerotrophic capacity. Reports in the literature place the concentrations of uranium in vegetation at 200 to 2000 fold lower than the uranium in soils and sediments whereas in the Link Lakes, concentrations in semi-aquatic vegetation are merely 100 times lower or even on par with soils and sediments.

When ^{226}Ra is abundant in the environment, the literature reports parity in the concentrations in soil/sediments and plants; if ^{226}Ra is scarce, concentrations in vegetation are 110,000 times lower in vegetation than in sediment and soil. The range is much less in the Rabbit Lake Basin (Table 9). This enrichment of radium by vegetation is most likely due to the presence of known accumulator species and hyper-accumulators, particularly *Nitella* (Appendix 2).

Concentrations of ^{226}Ra in *Nitella* in the Rabbit Lake Bbasin are 10000 times higher than values reported in the literature. It should be noted that, generally, units reported in the literature are in $Bq.kg^{-1}$ whereas the concentrations *in Nitella flexilis* are reported in $Bq.g^{-1}$. *Nitella* also occurs in Wollaston Lake where it similarly accumulates uranium and ^{226}Ra to lower concentrations than in the Rabbit Lake Basin but still higher than levels reported in the literature (Table 9). The highest value reported in the literature for ^{226}Ra concentrations in vegetation is 62.1 Bq kg^{-1} for terrestrial plants in the former USSR, whereas the highest value for *Nitella* noted in Upper Link Lake is 60 Bq g^{-1}.

This hyperaccumulation can be explained due to specific characteristics of the macrophytic algae *Nitella.* As for all of the Characeae, *Nitella* anchors itself to sediments not by roots but by means of extremely fine, single-celled, chlorophyll-free rhizoids. It accumulates elements on the external cell wall not from the sediment but directly from the water, and likely in proportion to concentrations in the water.

5.4.1 Species-Specific ^{226}Ra Accumulation

The accumulator alga *Nitella* was re-introduced to Upper Link Lake from Lower Link Lake in June, 1989 to bring about a reduction of the ^{226}Ra load above Sedimentation Dam. The vegetative parts of the algae were transplanted along transects in the lake, which were then monitored. Biomass was quantified on a per m^2 basis and uranium and ^{226}Ra concentrations in the biomass were determined several times between 1988 to 1997 and finally in the fall of 1998.

During the period when the algae population established itself, concentrations in the biomass were very high, reaching up to 50 $Bq.g^{-1}$ in Upper Link Lake and 60 $Bq.g^{-1}$ in the bog above the beaver dam (Table 10a). During the early years of establishment, biomass was collected in June or July and thus would include biomass which had over-wintered and been exposed to relatively high ^{226}Ra concentrations in the late winter-early spring due to the pronounced flux of ^{226}Ra from the mine slimes.

In 1998, ^{226}Ra concentrations in the biomass were lower than in previous years, ranging from 2.5 to 9.4 $Bq.g^{-1}$ in Upper Link Lake (Table 10a) and 5 $Bq.g^{-1}$ in the muskeg below the beaver dam. The 1998 samples were obtained in early September, representing the second or third crop for the year which had not over-wintered. As noted, ^{226}Ra and U concentrations in algae are a direct product of concentrations in the water. Consequently, the lowest concentrations of both uranium and ^{226}Ra were found in biomass from Lower Link Lake.

Uranium and ^{226}Ra accumulation per unit area by *Nitella flexilis* is presented in Table 10a, using the specific biomass determined for each location in the system and compared for the two periods where values were available. In 1998, a new biomass assessment was carried out for each part of the drainage basin.

In 1991 and 1992 it was estimated, based on 100 Eckman grab samples taken from throughout the basin, that the density of biomass in the basin ranged from 1 $g.m^{-2}$ to 1000 $g.m^{-2}$ with an overall average of 250 $g.m^{-2}$. The patchy distribution of the biomass is presented in Schematics 1 and 2.

Standing biomass varies with the season as do its concentrations of ^{226}Ra. Projections of ^{226}Ra and uranium in standing biomass are based on 250 $g.m^{-2}$, the average early summer value, along with the average concentrations derived from the samples collected between 1988 and 1997. Similarly large fluctuations in standing biomass are reported In the literature. For example, Carneiro et al. (1994) reported that the biomass of the species *Chara hormannii*, an aggressive invader of a shallow hypertrophic lagoon in Brazil, ranged between 500 to 700 $g_{dw}.m^{-2}$ in the winter rainy season and 100 $g_{dw}.m^{-2}$ in the fall. The average biomass value in the Link Lake system therefore falls within the range reported in the literature.

Table 10a presents estimates of the mass of ^{226}Ra per hectare contained by *Nitella* covering the years 1988 to 1998, for the area below Sedimentation Dam, Upper and Lower Link Lake and for Wollaston Lake. Table 10b presents the concentration ranges and the averages used to derive mass estimates. Detailed concentrations recorded between 1988 to l997 are provided in Appendix 1, Table 9. Table 10a contains estimates for uranium per hectare which range from 0.83 kg/ha to a seasonal high of 6.23 kg/ha, considerably higher than in Wollaston Lake where the standing biomass per ha contains only 0.001 kg.

This single species approach to evaluating the contaminant transfer for the two elements of concern does not represent the total transfer which takes place in this system, as phytoplankton and TSS are not considered. However these estimates using only Nitella, it's biomass and concentration, do provide a valuable perspective of the magnitude of the transfer.

For example, this single species occupying one hectare of the drainage area may remove about 3 M-Bq to 4 M-Bq of ^{226}Ra per ha, using the fall biomass and the fall concentrations; as it is reasonable to assume that per growing season, at least two turnovers or two crops of standing biomass can be expected, this would provide an annual removal equivalent to 6 to 8 M-Bq.ha^{-1}.year^{-1}. The transfer of ^{226}Ra from the water to the biomass is likely much higher as concentrations of ^{226}Ra are higher in the spring. At the peak of the growing season the mass of ^{226}Ra ranges from 7 M-Bq.ha^{-1} to 55 M-Bq.ha^{-1} .

Hence it is not surprising that the water borne contaminant loads discussed previously are reflected in the presence and absence of this hyper-accumulating algae. Biomass and concentrations of both contaminants were also estimated for Wollaston Lake on a hectare basis. The mass of ^{226}Ra is 40 times higher in Lower Link Lake and 140 times higher in Upper Link Lake than in Wollaston Lake.

The same estimates are presented for uranium per hectare ranging, over the season, from a high of 7 kg ha^{-1} down to 0.6 kg .ha^{-1} (Table 10a), considerably higher than in Wollaston Lake where the standing biomass per ha contains only 0.001 ha^{-1} . These estimates clearly demonstrate that this hyper-accumulating algae removes a respectable quantity of the contaminants from the water.

5.4.2 ^{226}Radium and Uranium in Periphyton and Phytoplankton

The estimates above do not include elements captured by phytoplankton**,** periphyton and TSS. Table 11 provides ^{226}Ra and uranium concentrations captured by algae groups other than *Nitella*. The average biomass concentrations in attached filamentous algae range from 0.5 Bq.g^{-1} to 14 Bq.g^{-1} ^{226}Ra and 246 to 1,334 µg.g^{-1} uranium. These concentrations are remarkably high and indicate the important of phytoplankton, periphyton and TSS in contaminant removal.

By using estimates of gross productivity (defined as change in biomass plus all predatory and non-predatory losses divided by a time interval), it would be possible to assess the contribution of these algae to contaminant transport from the water to the sediment. Such estimates would be best obtained by using ecosystem models which account for primary productivity in aquatic systems. The input parameters to such models have certainly been defined in this study for the drainage basin.

5.5 Sediment Accumulations

The discovery of the Rabbit Lake ore body was to a large degree facilitated by the sediment concentrations of uranium and ^{226}Ra. Sediments represent a natural sink for elements mobilized by weathering in mineralized areas, and sediment investigations have formed an integral part of past and present exploration techniques.

The number of sediment samples from the project area is lower than the number of water quality samples, as sediments were not part of the regulatory monitoring program. In addition, the sample size varies with location. Generally, trouble spots such as the mine slimes have received more attention than other areas in the drainage basin. On the other hand, the absence of a systematic long-term data set is compensated by the retention of information in the actual sediment; in other words, the record is still there if more data is required. The samples are grouped according to time of collection for similar areas in the drainage basin, in order to determine whether the concentrations of ^{226}Ra and uranium reflect sediment enrichment with time.

5.5.1 Uranium enrichment in sediments

A drilling campaign carried out in 1986 recovered samples from below the mine slimes from cores at depths below 1 to 4 m (Table 12a), that is to a depth that predates mining in the basin. The raw data for these 1986 average concentrations are reported in Appendix 1 Table 6. The general area of the sampling locations is given in Schematic 3. The average concentration of 17.5 $\mu g.g^{-1}$ uranium for these eight samples represents the mineralized background concentration although in seven of them, concentration levels were below detection limit (10 $\mu g.g^{-1}$). These limits are used, in averaging, as values.

Samples collected in 1998 by Eckman dredge from the shallow (shallow delta A - C) and deep (deep delta A - D) portion of the Delta in Upper Link Lake above the Narrows contain an average concentration of 2030 $\mu g.g^{-1}$ uranium (Table 12a, raw data in Table 14 and 15 of Appendix 1). Two samples were also collected on September 1, 1998 in the deep portion above (ULL-AN) and below (ULL-BN) the Narrows and can be compared to the 1999 sample regions (see below). These concentrations were 3830 $\mu g.g^{-1}$ and 2270 $\mu g.g^{-1}$ of uranium respectively (Table 15, Appendix 1). This represents a considerable increase from the pre-mining condition, after 13 years.

In 1999, a major sampling campaign was carried out in the entire drainage basin (Conor Pacific, 2000). Core sediment samples (0-5 cm and 10-15cm) were collected throughout the drainage basin, above and below the Narrows and in Lower Link Lake. Sampling locations for this 1999 campaign are shown in Figures 2.2-1, 2.1-2, and 2.1-3 in Appendix 1. The average concentrations from these 1999 samples are somewhat higher than in 1998 for the similar locations?? in Upper Link Lake above the Narrows with 3321 $\mu g.g^{-1}$ uranium. Even higher concentrations are reported for below the Narrows with 5082 $\mu g.g^{-1}$ uranium (Table 12a, raw data in Table 16 Appendix 1).

This higher accumulation below the Narrows was not surprising. The transport mechanism of uranium is associated with particulate matter which would settle below the Narrows, where the lake is deepest, forming a large bowl.

As the concentrations in the water decrease, the concentrations in the sediments decrease. The concentrations in Lower Link Lake, where only surface samples (0-5 cm) were analyzed, show an average of 1749 $\mu g.g^{-1}$ of uranium.

Table 12b presents sediment concentrations in samples collected from the wetland below Sedimentation Dam in l988 (six in February and one in June) as well as a sample taken in August 1998 (Table 15, BAD location, Appendix 1 for raw data). Not surprisingly, the 1988 concentrations, which averaged 624 $\mu g.g^{-1}$, were not high as the time for particulate settling is very short in this area and major uranium accumulation takes place above the dam. The sole 1998 sample contained 3750 $\mu g.g^{-1}$ uranium, a considerable increase. The massive algal blooms in every spring and fall (Plate 3) likely contributed to the increase.

5.5.2 ^{226}Radium enrichment in sediments

Unfortunately, the same comparisons cannot be made for ^{226}Ra, before and after the onset of mining in the basin as concentrations of this element were not determined in the cores recovered from beneath the mine slimes. The highest concentrations of ^{226}Ra, at 54 $Bq.g^{-1}$, reported in the 1998 Eckman grab samples, were found in Upper Link Lake both in the deep area above the Narrows and in the shallows of the Delta [1] (Table 12a, raw data in Table 14, Appendix 1). Below the Narrows the concentrations are lower with an average of 7 $Bq.g^{-1}$ in 1999. The 1999 concentrations decrease further in Lower Link Lake in the surface 0-5 cm to 2 $Bq.g^{-1}$.

The higher sediment concentrations of ^{226}Ra in Upper Link Lake above the Narrows in the surface samples might be attributed to the presence of the *Nitella* population.

Table 12b reports an average ^{226}Ra concentration of 1.32 Bq.g^{-1} in the 1988 sediment samples collected in the wetland below Sedimentation Dam (raw data in Table 14, Appendix 1) and the 4.8 Bq.g^{-1} concentration found in a single sample collected form this area (BAD) in 1998*.* These concentrations are much lower than those of the *Nitella*-enriched sediments in Upper Link Lake; unfortunately, the area was not sampled in 1999. *Nitella* grows in the wetland, but only in patches so the sediment samples may not reflect its influence.

In Table 12b the average ^{226}Ra concentration in the sediments in the wetland below the Sedimentation dam are reported for samples collected in l988 as 1.32 Bq.g^{-1} (raw data in Table 14, Appendix 1). This does not corroborate with the presence of *Nitella* as was proposed for Upper Link Lake. In l998 the one sample collected from this area (BAD) reported 4.8 Bq.g^{-1}, higher but not as high as in Upper Link Lake. In this area the highest concentrations of ^{226}Ra should have been found, as the removal of ^{226}Ra has prevailed for a long time. It is unfortunate that this area did not receive any attention in the 1999 sampling campaign. *Nitella* grows in patches, and it may be that the seven samples collected in 1988 and one in 1998, do not reflect the spatial distribution of the *Nitella* population in this area.

Nonetheless, compared to ^{226}Ra concentrations in sediments in the literature (<0.01 to 0.95 Bq.g^{-1}, Appendix 2, Table 3) it is evident that concentrations in the Link Lake system are elevated

5.5.3 Sediment enrichment of ^{226}Ra and uranium with time and depth

Figure 12a provides an overall time trend for U; Figure 12b for ^{226}Ra. The raw data for the sediment concentrations is reported in Appendix 1 Tables 16 and 19 to 21.

Fifty two sediment samples collected in 1976 as part of the mineral exploration of the basin, contained average U concentrations of 545 $ug.g^{-1}$ (Figure 12a). Although there are large gaps between sampling periods, the available data shows a consistent increase with time in uranium concentrations in Upper Link Lake sediments (except for 15 samples from 1988). However, for ^{226}Ra, no trend with time can be noted with the scarcity of available records (Figure 12b).

Numerous samples from throughout the basin were collected In 1999 (Conor Pacific, 2000) Sampling locations are given in Map 2.1-1 to 2.1-3 in Appendix 1 and the raw data are given in the same Appendix in Table 16.

As the 1999 sampling systematically covered the area above and below the Narrows, this data set should reflect the presence of the hyper-accumulating species in Upper Link Lake above the Narrows. Most importantly the core samples of the uppermost layer of the sediment (0-5cm) should differ in concentration from the deeper samples, collected at 10-15 cm.

Figure 13a provides ^{226}Ra concentrations found in the uppermost 5 cm of the sediments for Upper Link Lake above the Narrows; this upper layer contains the contaminants transported there by most recently.

Sampling locations are indicated by UB 1- 21 (Upper Basin) and LB 1 to 10 (Lower Basin) and Lower Link Lake (LL1 to 10). In the upper basin of Upper Link Lake, the 0 - 5 cm sediment concentrations are relatively consistent with an average of 20.09 $Bq.g^{-1}$, reflecting concentrations of about 30 Bq/g found in *Nitella* in the same area and slightly lower than the 1998 average concentration of 24.1 $Bq.g^{-1}$ (Table 12a). The most extremely low value, reported for Station UB 19 was omitted from the calculation.

Unfortunately, sediment core sampling in 1999 did not record the presence or absence of *Nitella flexilis*. Some of the values, however, in the surface samples (UB18 and UB14) are in the range of concentrations reported for the algae collected in Upper Link Lake above the Narrows.

The concentrations below the Narrows in Lower Link Lake decrease to an average of 7.1 $Bq.g^{-1}$ ^{226}Ra in the sediment (Figure 13b). This would be expected as the *Nitella* population is sparse in this area. The sediments in Lower Link Lake contained average ^{226}Ra concentrations of 1.6 $Bq.g^{-1}$, the lowest found in the basin.

The relative magnitude of ^{226}Ra and uranium accumulations in the Link Lake sediments can be assessed by comparing them with accumulations in Wollaston Lake. In the 1999 sampling, sediments in Pow Bay, which has received outflow from the Link Lakes since the start of mining, contained 0.07 $Bq.g^{-1}$ of ^{226}Ra (Table 17 in Appendix 1). This was lower than the 0.1 $Bq.g^{-1}$ contained in sediments in Hidden Bay which received effluent from the chemical treatment plant over the same time span. Average uranium concentrations in Pow Bay were also lower, 6.8 $\mu g.g^{-1}$ as compared to 28.1 $\mu g.g^{-1}$ in Hidden Bay.

Surface (0 to 5 cm) U concentrations from the same sequence of samples that provided ^{226}Ra concentrations in Figure 13a are presented in Figure 13c and 13d and 13b. Here we expect a different pattern than for ^{226}Ra, as uranium binds to free-floating phytoplankton and TSS which would carry it below the Narrows where it collects. In fact, concentrations are relatively constant throughout the Upper Basin, at 3541 $\mu g.g^{-1}$, lower than the 5082 $\mu g.g^{-1}$ below the Narrows with of uranium.

In Lower Link Lake a further reduction was expected and confirmed with an average of 1749 $\mu g.g^{-1}$ of uranium in the surface sediments (0 - 5 cm) (Figure 13d). Such concentrations reflect the natural water cleaning process outlined in this report. For both U and ^{226}Ra , the concentration trends noted in the surface samples strongly reflect the minerotrophic behaviour of the sediments.

Samples were taken as part of the 1999 study (Conor Pacific, 2000) from five stations (UB17 to UB21 in Figure 2.1-1, Appendix 1) established on a transect crossing the lake just above the Narrows. At three of the five stations, concentrations of both ^{226}Ra (Figure 13e) and U (Figure 13f), were greater in the deeper (as opposed to uppermost) layers of sediment. This might seem anomalous, especially in regards to ^{226}Ra given that the effects of algal-based removal processes being investigated should have been most evident in the surface layer. But the uppermost five centimeters of sediment, depending on lake-specific sedimentation rates, represent about 25 years in the history of a lake (Prof. Smol, Queens University, personal communication) whereas the impact of the emerging *Nitella* population was felt only in the last 4 years; therefore the uppermost layers are not representative of the last 5 years. Efforts to collect data on sedimentation rates in the Rabbit Lake basin failed due to extensive overgrowth of the sedimentation traps.

5.5.4 Physical / chemical characteristics of sediments

The characteristics of sediments are also relevant to the minerotrophic behavior of the drainage basins. Table 12c summarizes physical characteristics of the sediments from which the Table 12a and 12b samples were drawn. Sediments from the old cores (1986-1987) show a similar range of organic matter as the 1998 sediments below Sedimentation Dam and in Lower Link Lake. The average L.O.I. values range from 4.2 to 30.2 %, with the lowest concentrations in the shallow and deep delta in 1998, i.e. the mine slimes.

Also reported in Table 12c, where available, is the pH of slurries made from the sediment samples (one part wet sediment, 2 parts distilled water). The lowest pH value of 4.1 is from the 1986-1987 ULL delta samples, with all other values in the range of 6.2 to 6.7. Due the long freezing time, some sublimation of the water would have occurred so moisture content was not determined; the pH values are slightly higher than in fresh sediments. The pH value is important in determining the surface absorption characteristics of solid particles and of the (non-decaying) or extremely slowly decaying) organic matter of the sediments. The moisture content of the samples, with the exception of the mine slimes of the Delta (Shallow-Deep Delta 1998) is very high, reflecting the classical gyttja nature of the sediments (Table 12c).

Johnston et al. (1987) stated that the key factor contributing to the minerotrophic nature of a drainage basin is organic matter. This factor is examined with the frequency distribution of L.O. I. for all sediment samples shown in Figure 14. The results are grouped by the two areas from which the samples were collected from the Bog Above Beaver Dam (BAD and Lower Link Lake (LLL).

For Upper Link Lake, 50% of the samples contain 17% organic matter or more, whereas in Lower Link Lake 50% of the samples contain 29% of L.O.I. or more. The lower organic matter content is the result of the mine slimes in Upper Link Lake and the large inorganic TSS load from the erosion of the upper part of the Rabbit Lake drainage basin. An increase in recalcitrant organic matter can not be expected due to phytoplankton, but would be expected from higher plants or the proposed constructed islands discussed in Section 5.7. Organic content is high in both lakes; more so in Lower Link Lake. The L.O.I. of the control samples collected in Hidden Bay and Pow Bay ranged from 3.5 % to 6.2 %, similar to the 4 % found in Delta sediments.

Sediment data specific to the Link Lake drainage basin was examined for a possible linear relationship between L.O.I. and the contaminants of concern. The values of L.O.I. are plotted in Figure 15a against the ^{226}Ra concentrations for all samples of the drainage basin. The symbols (open circle, full square and triangle) represent the locations of the sediment samples. The same data are presented with two different scales, Figure 15a total concentration range and Figure 15b the lower range.

For the Upper Link Lake samples, with their low recalcitrant organic matter content, no relationship with ^{226}Ra concentrations is apparent (Figure 15a). A trend is suggested, however, when the L.O.I. values increase such as those seen in BAD and LLL. If the relationship in the lower range of ^{226}Ra concentrations up to 10 Bq.g^{-1} is examined against the percentage of organic matter (Figure 15b) a weak relationship can be noted.

In Figure 16a and 16b, the L.O.I. and uranium are evaluated in the same manner as ^{226}Ra. Again the samples from Upper Link Lake fall largely into a separate group, with low L.O.I. values and no apparent relationship to uranium levels. When the lower uranium concentration range is examined (Figure 16 b), a more pronounced trend is evident than seen for ^{226}Ra although the values are well scattered and the relationship is still weak. The association of sediment and ^{226}Ra is further discussed in Appendix 2. Some aspects of mobility of this element are given along with the environmental distribution and its chemistry.

Although the historic record on sediment concentrations is not extensive, data relating to uranium concentrations in sediments indicate that sediments play a key role as a natural sink for weathering products. The scientific understanding of the role of sediments and their interactions with water are reflected in the data collected from the Rabbit Lake drainage basin. In fact, it would be difficult to inhibit or prevent these natural processes, but it would be useful to optimize the already existing natural processes of water cleansing.

5. 6 Nutrient Status of the Link Lakes

The previous sections summarized the characteristics of the drainage basin and quantified the contaminants in water, biota and sediment. The quantification was based on long-term data sets collected with reasonable consistency throughout the drainage basin. The data collection was driven by regulatory requirements which do not necessarily address relevant ecological factors of the drainage basin. The nutrient status of the water plays a key role in biomass production, sediment/water interactions and contaminant fate. In the next section this aspect of water quality is briefly evaluated.

5.6.1 Nutrients in water

More than any other parameter, nutrients determine the biological productivity of water. Table 13 presents the concentration ranges of nutrients which define the trophic status of water bodies. The background natural concentrations are summarized giving both µM and $mg.l^{-1}$. (CCREM, 1987; and Wetzel, 1983).

The nutrient status of the Link Lake system was evaluated in 1993 as part of the monitoring program related to the *Nitella* work. It was recognized at that time,that the nutrient concentrations in the lakes were very high, falling into the hyper-eutrophic range. Recommendations were made to increase the wetland vegetation areas on the mine slimes and the shorelines, especially in Upper Link Lake, to reduce the nutrient and ^{226}Ra loadings to the water.

The NO_3-N nutrient data base from 1975 to 2000 is presented in Figure 17a for W5 and W15. Although records are sparse, the data clearly shows that disturbances in the basin lead to fluctuations in the concentration of nutrients with actual average concentrations in µM below the bars. The numbers of samples are listed below Figure 17a. The background concentrations, listed in Table 13 are also indicated with the highest concentration reported as background. All nutrient data are presented in the same manner.

The nitrate that began to enter Upper Link Lake in 1985, coincided with the construction of the waste rock pile; the supply of nitrate was greatly reduced In 1997 by the diversion of seepage from the waste rock pile. Unfortunately, the data from W5 and Sedimentation Dam (W15), were not often gathered during the same time periods. And even in years when there is an overlap, sample numbers are generally low. Thus the fate of nitrate in Upper Link Lake is not clear. But for those dates when both locations were sampled, nitrate concentrations seem to be reduced greatly on their passage through Upper Link Lake (Figure 17a). The available data suggests that the waste rock piles were the source of nitrate.

Figure 17b presents nitrate concentrations at Sedimentation Dam and in the Lower Link Lake outflow (W25). With the exception of 1997, the concentrations are close to the low end of the background scale (Table 13). Note that the scale of figure 17b is 10 times lower than that in Figure 17a.

Figure 18a and 18b make the same presentation for concentrations of available ammonium. Until 1984, during the early stages of mining in the basin, ammonium concentrations were high at Sedimentation Dam as a result of the disturbance of sediments in Upper Link Lake and/or residues from the use of ANFO explosives. No data are available for W5 prior to 1985. From the limited number of years and results from the two sampling stations, it appears that sediments in Upper Link Lake generate ammonium. The graph scale for ammonium does not change when concentrations are plotted for Lower Link Lake (Figure 18b). Again, the early years of mining activity reflect sediment disturbance but generally the concentrations reported stay within the normal range reported for ammonium. The increases in 1997 and 1998, which are the exceptions, may be the response of the sediments in Upper Link Lake to the changes in flow, brought about by the diversion of the seepage from the waste rock pile. Ammonium concentrations leaving Lower Link are well within the background range for surface water (Table 13). In summary, both nitrate and ammonium are leaving Link Lake in concentrations which are within reported natural background levels. Although extremely high ecological levels of nitrate can occur, the Link Lake system is retaining most of the nitrate.

Figure 19a provides phosphate data from 1975 to 2000 for the stations W5 and W15. In the early years of mining, phosphate concentrations in Upper Link Lake at the Sedimentation Dam (W15) indicate that this part of the lake was generally eutrophic or, in some periods, hyper-eutrophic. Phosphate concentrations at W5 in 1985 to 1988 were very high, likely due to the processing of the #5 East Waste Rock Pile for pervious surround material. The source of the observed phosphate concentrations is likely the weathering of the crandallite-group minerals (strontium aluminium phosphate) which is present in the host rock throughout the Athabasca basin (J. Percival, personal communication 1992). In Lower Link Lake (Figure 19b), phosphate concentrations are lower, possibly reflecting in recent years mesotrophic conditions or natural background for oligotrophic water leaving the drainage basin. In summary, although mining activities have brought about changes in nutrient status, the ecosystem equilibrates quickly by increased and sometimes intense biological productivity (Plate 3).

5.6.2 Nutrient cycling

Table 14, summarizes all biologically-mediated processes relevant to nitrogen cycling. Depending on the availability of oxygen and organic carbon, species of nitrogen can be converted into other species.

Nitrate concentrations diminish in Upper Link Lake and in the wetland area downstream so that concentrations arriving in Lower Link Lake and leaving it to Pow Bay are usually within natural background levels. Direct nitrate removal from water passing through Upper Link Lake is likely the result of two processes; assimilatory nitrate reduction and bacterially-mediated denitrification and dissimilatory nitrate reduction.

Assimilatory nitrate reduction is the direct uptake of nitrate by vascular plants, which is occurring in the vegetated Delta and around the lake perimeter and by phytoplankton, periphyton and *Nitella* in the lake. Nitrate taken up by plants is not lost from the ecosystem, but is incorporated into protein, cell wall components, and nucleic acids. Upon death of the biomass, various forms of organic nitrogen join the soil or sediment pool. During microbially-mediated decomposition, dead plant materials are degraded by a process termed ammonification to NH_4^+, an inorganic nitrogen which can be adsorbed by sediments, taken up again by plants, or reconverted to nitrite and nitrate by microbially-mediated nitrification (Table 14).

The second removal process, bacterially-mediated denitrification and dissimilatory nitrate reduction, occurs in the Upper Link Lake's anaerobic sediments, its peripheral muskeg, and in the vegetated Delta. Denitrification transforms nitrogen to nitrogen gas which is lost to the local ecosystem. Dissimilatory nitrate reduction adds inorganic nitrogen in the form of NH_4^+ to the soil and sediment pool, making it available again for uptake by plants, or re-conversion to nitrate (nitrification) upon exposure to aerobic conditions.

Since both NO_3^- and NH_4^+ concentrations are typically low (1.3 and 0.4 $mg.L^{-1}$, respectively) at the outflow of Upper Link Lake in comparison to the upper part of the drainage basin, processes other than denitrification must be at work, for example uptake by algal and vascular plants with subsequent storage of the nitrogen in living biomass and plant litter.

Since ammonium concentrations of only about 0.4 $mg.L^{-1}$ remain in the lake. A second possibility is that ammonium produced in Upper Link Lake sediments via ammonification may be adsorbed to sediment organic, rapidly taken up by plants, and/or undergoes nitrification to NO_3^-, and then denitrification to N_2 gas.

5.6.3 Nutrients and sediments

Experiments reported in the literature, seem to indicate that sediments are capable of high rates of nitrate reduction (denitrification and dissimilatory nitrate reduction). Jorgenson (1989) determined rates equivalent to about 1 $kg.ha^{-1}.day^{-1}$ from measurements in sediment cores using ^{15}N tracer techniques. Sweerts and de Beer (1989) determined rates equivalent to 96 mg.L $sediment^{-1}$. day^{-1} nitrate removal using NO_3^- electrodes in sediment cores. Using Jorgenson's estimate, the 22 ha area of Upper Link Lake sediments could be removing 8 t of NO_3^- (1.8 t N) per year. Under anaerobic conditions, denitrification and dissimilatory nitrate reduction are among the first reactions to take place, both from theoretical thermodynamic considerations (Zehnder and Stumm, 1988) and as reported from actual measurements within sediments (Sorensen 1982; Jones et al. 1984).

The literature indicates that NO_3 inhibits sulphate reduction and Fe reduction; and continues to do so until it is entirely used up (denitrification/dissimilatory NO_3 reduction; Ghiorse 1988). This is relevant to nitrate removal within the drainage basin, particularly with respect to the maintenance of the minerotrophic nature of the sediments.

However, SO_4 reduction may result in the solubilization of ^{226}Ra from Ba sludges (Fedorak et al.1986). The solubilization of ^{226}Ra is inhibited by NO_3 (Fedorak et al. 1986). This suggests that denitrification (implied in the Fedorak study from presence of bubbling) and/or NO_3 reduction can prevent ^{226}Ra solubilization if NO_3 is present. The very high concentration of NO_3 in water entering the Delta marsh will favour NO_3 reduction/denitrification at the expense of SO_4 reduction.

Promotion of these processes will both remove nitrogen from the water (NO_3 reduction/ denitrification and uptake into biomass) and reduce solubilization of ^{226}Ra. Fe(III) reduction and NO_3 reduction are often carried out by the same bacteria. Iron reducers have been shown to reduce U(VI) to U(IV) as a source of energy and thus fix uranium in sediments (Lovley et al. 1991). The same bacterial isolate used in this study (GS-15) was also found to have the capacity to reduce NO_3 (Lovley and Phillips 1988).

Therefore, conditions favouring NO_3 reduction may help to stabilize U in the system. The ability of this bacterium to utilise Fe (III) and Mn (IV) as alternative energy sources implies that it will continue to compete for organic matter, even when the nitrate is used up, thereby preventing SO_4 reduction and the possible associated release of ^{226}Ra.

It is evident from the forgoing that the cycling of the various forms of nitrogen in an aquatic environment is very complex but very relevant to the retention and release of contaminants from sediments. The sediments are responding to disturbances as indicated from the examination of the historic record of the nutrient concentrations in Upper and Lower Link Lake.

Plate 4 illustrates the magnitude of the biological activity under water in the drainage basin. The image was captured by an underwater video camera and depicts the population of attached filamentous algae on macrophytes. It was taken in the pond below the West Waste Rock Pile (Figure 3, W2) but similar images were generated throughout Upper Link Lake. Plate 5 shows *Nitella* biomass, free of attached epiphyton in Lower Link Lake at the time of transplant.

Plate 1 and 3 depict the underwater meadows in Upper Link Lake and Lower Link Lake. Given the abundance of growth there, the effect on water quality and changing growth conditions downstream is not surprising.

5.7 Optimizing minerotrophic behaviour

Like all ecological communities, the biomass of the Rabbit Lake Basin is in transition. Colonizing species, by definition, are generally weedy, fast-growing, and aggressive plants, tolerant of the particular chemical conditions of a given site. But by their presence and growth they transform the ecosystem making it more hospitable to other fauna. Already, the Characeae which dominated the basin are giving way to successor species. This colonisation trend, although natural, is not desirable as rooted submerged macrophytes likely retrieve most of their uranium from the sediments through the roots.

An ecological engineering approach, as outlined by this report, could be the primary decommissioning option implemented, or serve a supplementary function for some other decommissioning option. The water in this drainage basin is typical for uranium waste management areas, where alkaline conditions prevail. Nutrient balances are generally disturbed due to mining activities. The data summary also demonstrates the resilience of the aquatic system to the nutrient imbalances.

Since 1999, extensive rooted macrophytes (*Potamogeton* and *Myriophyllum* spp.) have established themselves on the mine slimes in a depth of water depth of about 0.6 to1.0 m, a zone not suitable for *Nitella*. Elemental analysis has shown that the dry matter of these vascular plants contains 0.18 % uranium (Table 8, Appendix1) which they have drawn from the sediment through their roots. *Hippuris vulgaris*, another hyper-accumulator of arsenic from sediments, is also present in the basin.

This was in part the reason for a recommendation made in l993 to start creating islands with hay bales in the shallow areas of the delta to encourage the growth of semi-aquatic, (rooted in the bales), rather than aquatic plants (rooted in the slimes).
Ecological Engineering measures could and should be used to prevent the proliferation of such species and to ensure that the Rabbit Lake basin continues to be a sink, rather than a source of uranium

5.7.1 Terrestrialization through island creation

The physical disturbance caused by pit development and creation of the mine slime delta impacted the original population of submerged aquatic plants in Upper Link Lake. After more than a decade, that population had still not recovered.

Fortunately, Sedimentation Dam and the wooded and bog areas below it protected Lower Link Lake. There, the ^{226}Ra-accumulating species of Characeae, *Nitella flexilis*, had been thriving and appear to have rebounded recently.

Through extensive beaver activity, shallow pools and puddles have formed, and the theoretical retention time of the water in this area (bog below dam, sub-drainage E1, Table 2) is short. At an average depth of less than 1 m, a retention time of 4.7 days is estimated for this area in the drainage basin. Although in the early years of the study the area was dominated by *Nitella* alone, terrestrialization is progressing with extensive biomass generation in the bog areas below Sedimentation Dam, as can be seen in Plate 1 and Plate 3. The standing biomass in the bog area below the dam remained high, even during the beaver dam break which led to the demise of the *Nitella* population in Lower Link Lake due to the bottom bound ice.

All these descriptions/observations suggest that contaminant retention could be optimized if more areas similar to those below the beaver dam could be created. This would be accomplished if the shorelines of Upper Link Lake were extended, work which should be done gradually. Islands could be built to provide more shoreline and shallows. In addition, the promotion of semi-aquatic vegetation on the mine slimes would reduce contaminant flux. These two measures alone would improve contaminant retention in the basin in the short term and, by furthering the terrestrialization of the basin, would optimize its long-term minerotrophic nature.

Ideally, the shores of Upper Link Lake would eventually take on the terrestrialized features evident in the aerial photograph of the pre-mining landscape of 1955 (Figure 1). The ear of the former Rabbit Lake is completely covered with vegetation and has whitish edges similar to those on shoreline of Upper Link Lake. The process of shoreline extension would most likely begin at the ear of Rabbit Lake and also at the shores of Upper Link Lake.

5.7.2 Reduction of ^{226}Ra Flux from Mine Slimes

About 1.6 ha of the mine slimes delta in Upper Link Lake has been partly colonized by semi-aquatic vegetation. Another 1.8 ha are submerged under 0.2-0.6 m of water. Vegetation development is impaired by the fact that the shallow delta is disturbed by wave action. In addition, the bottom surface is very hard and smooth, inhibiting the penetration of roots and accumulation of seeds and is scoured in the winter by ice.

Sedges were transplanted into the mine slimes (Plate2a) in 1992 on an experimental basis. These sedge hammocks were still alive in 2000 but have not spread since then (Plate 2b). This suggests strongly that physical and not chemical factors impair vegetation progression.

Detailed investigations of the ^{226}Ra flux from the mine slimes indicate that the semi-aquatic vegetation covering sections of the delta has reduced the ^{226}Ra flux by four times, as compared to the un-vegetated, sub-aerially exposed areas (M. Kalin and M.P. Smith, 1996). These results led to the conclusion that a cover of semi-aquatic vegetation over the remainder of the mine slimes would reduce the release of ^{226}Ra. Semi-aquatic vegetation has already naturally colonized a portion of the delta and was studied for its impact on ^{226}Ra flux as noted above. The differences in concentrations in mobile ^{226}Ra obtained in the porewater study, comparing bare and vegetation covered mine slimes, were large (M. Kalin and M.P. Smith, 1996).

This demonstrates the positive role played by vegetation in retaining weathering products in the drainage basin. Vegetation covers can assist in water quality improvement by transforming environments from oxidizing within which contaminants are released, into reducing which retain them. A reduction in contaminant flux from the mine slimes and an increase in the contaminant retention capacity of the entire system would be expected if the area was enriched with recalcitrant organic matter (non-decaying) such as bales of flax) which in turn would provide a barrier to penetrating roots of submerged macrophytes (such as *Potamogeton*).

5.8 Long-Term Stability of ecosystems

During the past decade, the ecology of shallow lakes has received considerable attention. Several researchers have noted that the structuring role of aquatic macrophytes in shallow lakes and their interactions with water quality lead to gradual ecological change (Jeppesen et al. 1998, A. Gasith and M.V. Hoyer 1998). These interactions are taking place in the Rabbit Lake Drainage Basin, leading to improved water quality and uranium and ^{226}Ra enrichment in the sediment.

Beltman et al. (1996) studied the macrophyte community characteristics and their successions in a mesotrophic open water fen in the Netherlands. They found that aquatic vegetation developed remarkably quickly in ponds when the physical and chemical conditions (water depth and chemistry) were favourable. The dominant colonizers for the ponds studied by Beltman, as in the Link Lakes, were species of the family Characeae and several *Potamogeton* species.

Van den Berg et al. (1998) presented a review of the ecological aspects of Charophytes and their potential usefulness in managing shallow lakes. The paper describes conditions that virtually mirror those of the Link Lakes. The particular lake investigated by Van den Berg covers an area of 3300 ha with an average depth of 1.4 m, part of it artificially isolated by a dam, similar to Sedimentation Dam. In the early years (1952 to 1962) before mining, the lake was a clear water lake, with a diverse macrophyte population, including extensive meadows of Charophytes. With progressive eutrophication, the Charophyte populations declined as the water transparency dropped to a Secchi depth of <0.4 m. The Secchi depths further declined to 0.25 m due to cyanobacterial blooms and the re-suspension of sediments.

Similarly, nutrient imbalances and sediment disturbances have been documented in the Link Lake system, particularly in Upper Link Lake. The lake experienced both eutrophic and hyper-eutrophic nutrient status as described in Section 5.6. The destruction of the macrophyte population in Upper Link Lake was brought about abruptly, by the flooding of the lake with sediment generated by the dewatering of Rabbit Lake sediment and in Lower Link Lake by ice scouring resulting from a dramatic water level decrease.

Algal blooms are common in Upper Link Lake and in the wetland below Sedimentation Dam, leading to Secchi depth reductions. As the reduction in Secchi depth progressed in the lake in the Netherlands, the macrophyte population was reduced to sparse stands of *Potamogeton pectinatus.* This species is also present in Lower Link Lake (Table 3a) and noted in recent years in Upper Link Lake. With the reduction of phosphorus concentrations in the lake in the Netherlands (from 0.4 to 0.15 $mg.L^{-1}$), by a treatment plant, water clarity improved and the Charophytes returned to over two-thirds of the lake.

Charophytes contribute to the clear water state, *a* natural, alternate stable state of shallow lake ecosystems, as described by Blindow, et al. 1997. This clear water state is also observed in Lower Link Lake. In Blindow's study, the vascular macrophytes *Potamogeton pectinatus* and *P. perfoliatus* as well as *Myriophyllum spicatum* were present, but not as abundant as the Charophytes, identical again to the situation in the Link Lake system. Through island creation and increasing wetland areas which control nutrient concentrations, would likely lead to an increased coverage of Nitella promoting a clear water state in Upper Link Lake.

The Link Lake system is a normal, shallow-lake ecosystem structured by submerged macrophytes. The landforms of the drainage basin support the minerotrophic conditions which form young surficial uranium deposits. The Charophytes in the drainage basin remove ^{226}Ra from the water with their exceptional affinity for this radionuclide, due to their cell wall characteristics and plant structure. As long as this algal group prevails, the minerotrophic conditions, if not altered intentionally, will be stable in the long term.

6.0 CONCLUSIONS

Ecological restoration measures are often perceived to consist of the construction and or management of wetlands (Kadlec and Knight 1996; Moshiri, 1993). However, the “wetland” per se is needed to support sediment functions, without which the minerotrophic nature of the drainage basin would not exist. By quantifying the most relevant components of the Rabbit Lake Drainage Basin, the pathway of the contaminants from water to sediment has been identified in detail. It is not the wetland, but the conditions of the shallow Link lakes, which allow Charophytes to grow in the waste water. Habitat supporting Charophyte growth should be promoted so that ^{226}Ra removal is maintained. The requirements for the growth of this hyper-accumulating algae have been well defined for the Link Lake system.

This study was initiated to explore the fate of contaminants known to be entering the Rabbit Lake Basin but not leaving it, a phenomenon that was welcomed but not understood. This study has shown the biological means and routes by which U and ^{226}Ra in the basin are removed from water and sequestered in the sediments, a process that was enhanced in 1991 by transplanting 12 tonnes of *Nitella flexilis* into Upper Link Lake. These mechanisms of biological cleansing have been known to ecologists for several years but it is doubtful that they have ever been documented so thoroughly for a specific drainage basin.

By fully accounting for the fate of ^{226}Ra in the basin, the study demonstrated the potential redundancy of a conventional radium treatment plant that might have been constructed. The decision by Eldorado Nuclear Ltd, to forego such a plant, with all its attendant costs and problems, in favour of biota and bacteria, was farsighted and courageous. This study has not only documented the wisdom of that choice, it has generated knowledge that will be invaluable when such options are debated elsewhere.

The mechanisms at work in the Rabbit Lake Basin are, within certain limitations, self-renewing and self-sustaining and are a natural analog with uranium formations described by geologists. Yet there is much that could be done, as noted in this report, to ensure their future effectiveness and to guarantee the permanent internment of the contaminants they capture. Habitat conducive to the growth of Charophyte should be preserved and expanded; recalcitrant organic matter could be applied to the Upper Link Lake delta, to permanently isolate the mine slimes; shorelines and shallows should be extended mechanically. The goal is to sequester contaminants today with the permanency by which surficial uraniums were formed in geological times. It is the hope of the author, that this report has demonstrated the feasibility of that goal.

In this drainage basin, a unique opportunity exists to demonstrate during the coming decade that through sound ecological management a sustainable decommissioning approach can be developed. This ecological engineering approach could be the primary decommissioning option implemented, or serve a supplementary function for some other decommissioning strategy. The water in this drainage basin is typical for uranium waste management areas, where alkaline conditions prevail. A great many such lakes and drainage basins exist in Canada and throughout the world.

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Table 1: Classification of Surficial Uranium Deposits in Canada (Culbert ,Boyle and Levinson (IAEA-Tecdo 322 1984)

Type of Deposit	Environment of Deposition	Principal Depositional Controls	Characteristics	Deposit Examples*
LACUSTRINE/ PLAYA	Closed Basin			
	- oxidizing	topography and evaporation	generally alkaline saline waters, shallowbasin, uranium concentration at surface	Wow Flates, Vicars Lake (Oliver Area)
	- reduction	topography and bacterial reduction	sulphate brines, deeper basin, uranium concentration at bottom	Purple Lake (Olive Area)
	Cyclically Closed Basin	topography and evaporation	alkaline conditions, interlayered clays and organics, occasionally reducing (H2S gas)	Stinkhole Lake (Summerland Area): Ranchhouse Lake, Powerline Flates, Sawmill Lake, Sinking Basin Cornerpost Pool (Olive Area); Shinglebend (Penticton
FLUVIATILE	Valley Fill			
	- collector basin	groundwater upwelling and evaporation discharge	deposits often large and complex	Prairie Flats (Summerland Area)
	- swamp	groundwater flow and organic sequestration	often role or tongue shaped; U concentration generally at bottom of organic profile, groundwaters may be fresh or alkaline	Nkwala, Brent (Penticton Area); Sinking Basin, Meyers Flats, Burnell (Oliver Area); Whooper Swamp (New Brunswick); Kasmere Lake (Manitoba); T.A.. Bog (Nova
	- channel	groundwater flow and organic sequestration	organic rich	Eneas Canyon (Summerland Area);
	Flood Plain			
	- meadow	groundwater infiltration and reduction	sand and gravel sediments mixed with organic material	Meadow Valley (Summerland Area)
	- oxbow, levee	groundwater infiltration and reduction	sandy-silt channels containing organic material, alkaline groundwaters	Hunter Basin (Oliver Area)
	Deltaic	surface drainage, organic sequestration, cation exchange	sandy organic sediments	Oromocto Lake (New Brunswick)
	Spring Deposits	groundwater discharge, organic sequestration, cation exchange	small fresh water orifices discharging into organic rich and/or clay rich catchments, commonly radioactive	Partridge lake (Yukon) Mir Springs (Northern B. C.)

* Note: All locations are in British Columbia except where noted.

Table 2: Sub-Drainage Basins (DB) of the Rabbit Lake Drainage Basin

Sub-Drainage Basin	Discharge Location	Boojum (Cameco) Sampling Stn	Land Area and Flow Estimates				Lake area	Avg Depth	Lake Vol.	Residence Time
			hectar	Sub-DBn Avg. Flow ($L.S^{-1}$)	Cumulative Avg. Flow ($L.S^{-1}$)	location	(ha)	(m)	(10^4 m^3)	(d)
A	Pond, Base of W-WRP	W2 (1.1)	223	16	16	Pond B, C and W2 Pond	8.44	0.5-0.75	6.22	NA
B	Airport Rd, Rabbit L.outflow	W5 (1.2.5)	142	10.3	26 (22.3)*	Residual Rabbit L.	17	3.0	50	218
						Pond A	3.7	0.75	2.8	NA
C	Upper Link L. Narrows	W14 (1.4.1)	221	15.9	42	ULL Above Narrows	16	1.3	20	56
D	Upper Link L. Sedimentatio n Dam	W15 (1.4)	74	5.3	48 (34.6)*	ULL Below Narrows	7.2	1.4	10	24
E1	Bog Below (Beaver) Dam	W21	262	18.8	66	Wooded Area	0.5	0.10	0.05	0.09
						BAD	2.6	0.75	2.0	3.4
						BBD	0.9	0.75	0.7	1.2
E2	Lower Link L. Discharge at Pow Bay	W25 (1.4.5)	85	6.2	73	Lower Link Lake	22	1.3	29	46

NA = Not Applicable * measured since 19/2/87 to 30/9/98.

Table 3a: Plant Species Found on Shoreline of Link Lake and /or Harrison Peninsula and Their Associated Habitats

Latin name	Code	Latin name	Code
GRASSES, SEDGES AND REEDS			
Agrostis scabra	*T,W*	*Carex vesicaria* L.	*W*
Alopecurus pratensis	*T*	*Eriophorum gracile* Koch	*W*
Bromus unioloides	*T,W*	*Eriophorum* spp.	*W*
Calamagrostis canadensis (Michx.)	*W*	*Hordeum jubatum*	*W*
Carex aquatilis Wahl	*W*	*Juncus brevicaudatus*	*W*
Carex chordorrhiza Ehrh	*W*	*Panicum* spp.	*T*
Carex lasiocarpa	*W*	*Poa* spp.	*T*
Carex limosa L	*W*	*Sparganium hyperboreum*	*W*
Carex spp.	*W*	*Typha angustifolia*	*W*
Carex utriculata	*T,W*		
SHRUBS AND TREES			
Alnus alnobetula	*T*	*Myrica gale* L	*W*
Alnus crispa	*W*	*Myrica* spp.	*W*
Alnus rugosa	*T,W*	*Picea marianna*	*T,W*
Andromeda polifolia	*W*	*Pinus banksiana*	*T,W*
Betula glandulosa	*T,W*	*Salix pedicellaris*	*T,W*
Betula occidentalis Hook	*T,W*	*Salix planifolia*	*T,W*
Chamaedaphne calyculata L Moench	*W*	*Salix pyrifolia*	*T,W*
Kalmia polifolia	*W*	*Vaccinium caespitosum*	*T,W*
Larix laricina	*T,W*	*Vaccinium oxycoccos* L	*T,W*
Ledum glandulosum	*T,W*	*Vaccinium uliginosum*	*T,W*
Ledum groenlandicum	*T,W*		
HERBACEOUS SPECIES			
Calla palustris	*W*	*Potentilla palustris* Scop.	*W*
Cicuta bulbifera L.	*W*	*Potentilla* spp.	*T*
Drosera rotundifolia L	*W*	*Ranunculus pygmaeus Wahl.*	*T,W*
Drosera spp.	*W*	*Ranunculus reptans* L	*W*
Epilobium angustifolium	*T,W*	*Ranunculus sceleratus*	*S*
Epilobium palustre	*W*	*Robinia* spp.	*T*
Fragaria vesca	*T,W*	*Sagina saginoides*	*T*
Gallum labradoricum Wiegand	*W*	*Senecio aureus*	*T,W*
Gaultheria hispidula	*T*	*Senecio discoideus*	*T,W*
Hippuris vulgaris	*W*	*Senecio* spp.	*T,W*
Leontodon Taraxacum L.	*T*	*Smilacina trifolia*	*W*
Malva sylvestris	*T,W*	*Solidago* spp.	*T*
Menyanthes trifoliata L.	*W*	*Sparganium angustifolium* var.	*T*
Myriophyllum sibircum	*S*	*multipedunculatum*	
Myriophyllum sp.	*S*	*Sparganium fluctuans*	*S*
Nyphaea tetragona	*S*	*Sparganium hyperboreum*	*W*
Pedicularis canadensis	*W*	*Trifolium* spp.	*T*
Petalostemum villosum	*T*	*Utricularia intermedia* Hayne	*W*
Potamogeton gramineus	*S*	*Utricularia vulgaris*	*W*
Potamogeton pectinatus	*S*	*Vallisneria spiralis L.*	*S*
MOSSES, LIVERWORTS AND HORSETAILS			
Drepanocladus exannulatus	*W,S*	*Marchantiales spp.*	*W*
Equisetum spp.	*W*	*Polytricium strictum*	*S*
Equisetum arvense	*W*	*Sphagnum* spp.	*W*
Equisetum flutians	*W*	*Sphagnum fallax* Wils.	*W*

T = Terristrial; W = Wetland; S = Submerged

Table 3b: Reproductive Modes of Species Identified in Table 3a

Latin name	mode of replication	Latin name	mode of replication
GRASSES, SEDGES AND REEDS			
Agrostis scabra	*seed*	*Carex vesicaria* L.	*seed*
Alopecurus pratensis	*seed*	*Eriophorum gracile* Koch	*seed*
Bromus unioloides	*seed*	*Eriophorum* spp.	*seed*
Calamagrostis canadensis (Michx.)	*seed*	*Hordeum jubatum*	*seed*
Carex aquatilis Wahl	*seed*	*Juncus brevicaudatus*	*seed*
Carex chordorrhiza Ehrh	*seed*	*Panicum* spp.	*seed*
Carex lasiocarpa	*seed*	*Poa* spp.	*seed*
Carex limosa L	*seed*	*Sparganium hyperboreum*	*seed, transplant*
Carex spp.	*seed*	*Typha angustifolia*	*seed, transplant*
Carex utriculata	*seed*		
SHRUBS AND TREES			
Alnus alnobetula	*cuttings/transplant*	*Myrica gale* L	*cuttings/transplant*
Alnus crispa	*cuttings/transplant*	*Myrica* spp.	*cuttings/transplant*
Alnus rugosa	*cuttings/transplant*	*Picea marianna*	*transplant*
Andromeda polifolia	*transplant*	*Pinus banksiana*	*transplant*
Betula glandulosa	*cuttings/transplant*	*Robinia* spp.	*seed/curttings*
Betula occidentalis Hook	*cuttings/transplant*	*Salix pedicellaris*	*cuttings/transplant*
Chamaedaphne calyculata L Moench	*cuttings/transplant*	*Salix planifolia*	*cuttings/transplant*
Kalmia polifolia	*transplant*	*Salix pyrifolia*	*cuttings/transplant*
Larix laricina	*transplant*	*Vaccinium caespitosum*	*cuttings/transplant*
Ledum glandulosum	*transplant*	*Vaccinium oxycoccos* L	*cuttings/transplant*
Ledum groenlandicum	*transplant*	*Vaccinium uliginosum*	*cuttings/transplant*
HERBACEOUS SPECIES			
Calla palustris	*transplant*	*Potentilla palustris* Scop.	*seed*
Cicuta bulbifera L.	*seed*	*Potentilla* spp.	*seed*
Drosera rotundifolia L	*transplant/seed*	*Ranunculus pygmaeus Wahl.*	*seed*
Drosera spp.	*transplant/seed*	*Ranunculus reptans* L	*seed*
Epilobium angustifolium	*seed*	*Ranunculus sceleratus*	*seed*
Epilobium palustre	*seed*	*Sagina saginoides*	*seed*
Fragaria vesca	*transplant/seed*	*Senecio aureus*	*seed*
Gallum labradoricum Wiegand	*cuttings/transplant*	*Senecio discoideus*	*seed*
Gaultheria hispidula	*cuttings/transplant*	*Senecio* spp.	*seed*
Hippuris vulgaris	*cuttings/transplant*	*Smilacina trifolia*	*seed/transplant*
Leontodon Taraxacum L.	*transplant*	*Solidago* spp.	*seed*
Malva sylvestris	*transplant*	*Sparganium angustifolium* var.	*cuttings/transplant*
Menyanthes trifoliata L.	*transplant/seed*	*multipedunculatum*	*cuttings/transplant*
Myriophyllum sibircum	*cuttings/transplant*	*Sparganium fluctuans*	*cuttings/transplant*
Myriophyllum sp.	*cuttings/transplant*	*Sparganium hyperboreum*	*cuttings/transplant*
Nyphaea tetragona	*transplant*	*Trifolium* spp.	*seed*
Pedicularis canadensis	*seed*	*Utricularia intermedia* Hayne	*cuttings/transplant*
Petalostemum villosum	*seed,transplant*	*Utricularia vulgaris*	*cuttings/transplant*
Potamogeton gramineus	*cuttings/transplant*	*Vallisneria spiralis L.*	*seed/transplant*
Potamogeton pectinatus	*cuttings/transplant*		
MOSSES, LIVERWORTS AND HORSETAILS			
Drepanocladus exannulatus	*cuttings*	*Marchantiales spp.*	*cuttings*
Equisetum spp.	*transplant*	*Polytricium strictum*	*cuttings*
Equisetum arvense	*transplant*	*Sphagnum* spp.	*cuttings*
Equisetum flutians	*transplant*	*Sphagnum fallax* Wils.	*cuttings*

Table 4a: Occurrences of Periphyton in Rabbit Lake Drainage Basin (1989-1995)

Taxa	Occurrences	%	Taxa	Occurrences	%
Oscillatoria	46	100.0	Planktosphaeria	3	6.5
Mougeotia	36	78.3	Zygnema	3	6.5
Tabellaria	31	67.4	Zygogonium	3	6.5
Nitzschia	21	45.7	Amphipleura	2	4.3
Navicula	20	43.5	Aphanizomenon	2	4.3
Pinnularia	20	43.5	Aphanocapsa	2	4.3
Scendesmus	19	41.3	Coleochaete	2	4.3
Synedra	19	41.3	Diatoma	2	4.3
Oedogonium	17	37.0	Epithemia	2	4.3
Fragilaria	16	34.8	Frustulia	2	4.3
Staurastrum	14	30.4	Oocystis	2	4.3
Spirogyra	13	28.3	Phacus	2	4.3
Stigeoclonium	13	28.3	Stichococcus	2	4.3
Cosmarium	11	23.9	Ulothrix	2	4.3
Microspora	11	23.9	Unid-Cyano-small	2	4.3
Asterionella	10	21.7	Unid-Diatom	2	4.3
Chlamydomonas	10	21.7	Binuclearia	1	2.2
Ankistrodesmus	9	19.6	Bulbochaete	1	2.2
Eunotia	9	19.6	Carteria	1	2.2
Temnogametum	8	17.4	Cylindrocapsa	1	2.2
Pediastrum	7	15.2	Desmidium	1	2.2
Anabaena	6	13.0	Dinobryon	1	2.2
Ceratoneis	6	13.0	Euastrum	1	2.2
Closterium	6	13.0	Kephryon	1	2.2
Cymbella	6	13.0	Lyngbya	1	2.2
Euglena	6	13.0	Microcystis	1	2.2
Unid-Chlor-flagg	6	13.0	Neidium	1	2.2
Melosira	5	10.9	Nephrocytium	1	2.2
Klebshormidium	4	8.7	Netrium	1	2.2
Sphaerellopsis	4	8.7	Nostoc	1	2.2
Spondylosium	4	8.7	Ochromonas	1	2.2
Stauroneis	4	8.7	Pandorina	1	2.2
Achnanthes	3	6.5	Pleurotaenium	1	2.2
Chlorella	3	6.5	Tabillaria	1	2.2
Chroococcus	3	6.5	Unid flagellates	1	2.2
Coelastrum	3	6.5	Xanthidium	1	2.2
Gomphosphaeria	3	6.5	Zygnemopsis	1	2.2
Peridinium	3	6.5			

Table 4b: Occurrences of Phytoplankton in Rabbit Lake Drainage Basin (1989-1995)

Taxa	Occurrences	%	Taxa	Occurrences	%
Scenedesmus	18	85.7	Melosiria islandica	4	19.0
Cryptomonas	17	81.0	Oedogonium	4	19.0
Unidentified chlorophyte	16	76.2	Coelosphaerium	3	14.3
Euglena	15	71.4	Stigeoclonium	3	14.3
Asterionella formosa	14	66.7	Trachelomonas	3	14.3
Planktospheria	13	61.9	Chroomonas	2	9.5
Tabellaria	13	61.9	Eudorina	2	9.5
Unidentified chrysophyte	13	61.9	Gloeocystis	2	9.5
Oscillatoria tenuis	12	57.1	Gomphosphaeria	2	9.5
Cryptomonas rostriformis	11	52.4	Mallomonas	2	9.5
Staurastrum	11	52.4	Oocystis submarina	2	9.5
Dinobryon	10	47.6	Rhizosolenia longiseta	2	9.5
Mougeotia	10	47.6	Schroederia setigera	2	9.5
Synedra	10	47.6	Selenastrum	2	9.5
Aphanizomenon	9	42.9	Spondylosium	2	9.5
Navicula	9	42.9	Stauroneis	2	9.5
Nitzschia	9	42.9	Acnanthes linearis	1	4.8
Pinnularia	9	42.9	Amphirora	1	4.8
Ankistrodesmus	8	38.1	Bitrichia chodatii	1	4.8
Ochromonas	8	38.1	Botryococcus braunii	1	4.8
Ceratium hirundinella	7	33.3	Carteria	1	4.8
Chlamydomonas	7	33.3	Chlorogonium	1	4.8
Pediastrum	7	33.3	Chromulina	1	4.8
Peridinium	7	33.3	Crucigenia	1	4.8
Closterium	6	28.6	Euastrum humerosum	1	4.8
Cosmarium	6	28.6	Frustulia rhomboides	1	4.8
Gymnodinium	6	28.6	Gonium	1	4.8
Quadrigula lacustris	6	28.6	Hyalotheca dissiliens	1	4.8
Rhodomonas	6	28.6	Lagerheimia	1	4.8
Spirogyra	6	28.6	Lyngbya	1	4.8
Unidentified cyanophyte	6	28.6	Merismopedia tenuissima	1	4.8
Anabaena	5	23.8	Micractinium	1	4.8
Phacus	5	23.8	Micropora	1	4.8
Synura	5	23.8	Neidium	1	4.8
Coelastrum microporum	4	19.0	Nephrocytium obesum	1	4.8
Cymbella	4	19.0	Netrium	1	4.8
Dictyosphaerium pulchellum	4	19.0	Pandorina	1	4.8
Eunotia	4	19.0	Zygogonium/Zygonema	1	4.8

Table 5a: Averages of Selected Water Characteristics at Six Monitoring Stations (1980-98)

Sites	Parameters	pH	Cond. (us/cm)	Ra^{226}-Tot Bq/l	U-tot mg/l	HCO_3 mg/l	S mg/l	TSS mg/l	TDS mg/l
W5	N	168	169	189	189	171	78	186	175
(85-98)	Max	8.0	466	0.7	7.7	92	38	10	424
(Airport road)	Min	6.4	87	0.07	0.6	22	4	0.8	50
	Average	7.1	192	0.30	3.9	51	15	7.4	180
W9	N	55	55	82	81	78	23	77	66
(88-98)	Max	7.9	386	1.3	18.4	105	34	2030	335
(Delta inflow)	Min	6.2	81	0.06	0.2	24	3	1	54
	Average	7.9	195	0.24	2.6	59	14	32	154
W14	N	110	108	123	124	114	36	123	122
(86-98)	Max	9.3	701	1.1	4.4	138	22	7	260
(ULL at Narrows)	Min	5.9	25	0.1	0.3	20	3	0.6	51
	Average	6.8	139	0.41	1.1	56	10	2.4	127
W15	N	128	121	140	140	125	34	136	134
(87-98)	Max	9.6	270	0.8	3.3	137	20	28	262
(Sed Dam)	Min	5.8	35	0.1	0.3	5	4	0.4	56
	Average	6.7	133	0.36	1.0	57	10	3.1	128
W20	N	81	77	109	109	96	30	101	74
(88-98)	Max	9.2	251	0.9	22.1	327	245	1110	224
(Bog above dam)	Min	5.9	41	0.1	0.1	16	3	1	38
	Average	6.7	133	0.20	1.2	58	12	15	121
W25	N	122	114	139	137	96	29	132	97
(80-98)	Max	8.7	970	0.6	2.2	181	24	18	291
(LLL outflow)	Min	5.9	27	0.01	0.06	22	0	0.2	48
	Average	6.7	128	0.11	0.3	56	6	3.3	113

Table 5b: Summary of Statistical Water Quality Trends

Data Status		Period	N	Sedimentation Dam	Lower Link Lake Outflow
Uranium					
Whole Period	All data	1987-98	139	significant increase	no significant trend
	Annual average	1987-98	16	significant increase	significant increase
Six year period	All data	1993-98	61	significant increase	no significant trend
	Annual average	1993-98	5	no significant increase	no significant trend
Radium					
Whole Period	All data	1987-98	139	no significant trend	significant decrease
	Annual average	1987-98	16	significant decrease	no significant trend
Six year period	All data	1993-98	61	no significant trend	significant decrease
	Annual average	1993-98	5	no significant trend	no significant trend

Table 6: Two Year Average of Selected Water Charateristics at Six Monitoring Stations (Oct-98 to Dec-2000)

Sites	Parameter	pH	Cond.	Ra^{226}-Tot	U-tot	HCO_3	S	TSS	TDS
			(us/cm)	Bq/l	mg/l	mg/l	mg/l	mg/l	mg/l
W5	N	11	11	11	11	11	7	7	10
(Airport road)	Max	7.5	179	1.3	0.1	27	15.7	110	116
	Min	5.6	47	0.04	0.02	13	2.3	1.0	52
	Average	6.6	87	0.34	0.05	19	7.2	30.9	87.9
W9	N	17	17	17	17	17	17	17	17
(Delta inflow)	Max	8.3	177	2	0.6	104	6.7	45	136
	Min	6.2	58	0.1	0.1	28	1.1	1.0	53
	Average	6.8	98	0.41	0.31	56	2.7	6.8	88.8
W14	N	11	11	11	11	10	11	10	11
(ULL at Narrows)	Max	6.9	148	2	0.3	76	5	10	124
	Min	6.0	62	0.2	0.2	32	1.2	1	55
	Average	6.6	94	0.64	0.20	50	2.5	4.9	85.3
W15	N	28	28	27	24	27	20	25	23
(Sed Dam)	Max	8.2	191	0.7	1	87	6.7	42.0	143
	Min	6.1	54	0.2	0.1	34	0	1.0	68
	Average	6.9	98	0.27	0.39	54	3.4	5.4	94.1
W20	N	23	23	23	23	23	23	14	23
(Bog above dam)	Max	8.0	222	0.4	1.4	107	6.7	23	160
	Min	5.9	60	0.03	0.1	34	1.2	1	48
	Average	6.8	105	0.13	0.30	55	2.9	6	86.8
W25	N	27	27	26	24	25	25	17	21
(LLL outflow)	Max	8.0	231	0.2	0.5	172	5.7	8	175
	Min	5.8	39	0.02	0.1	24	1	1	44
	Average	6.6	98	0.06	0.15	56	2.5	3	94.9

Table 7: Daily Average ^{226}Ra Loads in the Link Lakes, 1987 to 2000

unit: M-Bq.d^{-1}

Location	Summary of Loads by Period	Description	Airport Road W5	Sedimentation Dam W15	Lower Link Lake Outflow W25
Upper Link Lake	1987 - 1992	Before *Nitella* Establishment	0.71	1.64	0.56
	1993 - Nov. 1997	After *Nitella* Establishment	0.51	0.91	0.50
	Dec. 1997 - Dec. 2000	After North Ditch Diversion	0.031	0.38	0.22
Lower Link Lake	1987 - 89	*Nitella* Present	0.82	1.63	0.50
	1990 - 96	*Nitella* Absent	0.51	1.22	0.57
	1997 - 2000	*Nitella* Re-Establishing	0.25	0.52	0.26

Table 8: Daily Average Uranium Loads in the Link Lakes, 1987 to 2000

unit: M-Bq.d^{-1}

Location	Summary of Loads by Period	Description	Airport Road W5	Sedimentation Dam W15	Lower Link Lake Outflow W25
Upper Link Lake	1987 - 1992	Before *Nitella* Establishment	7.93	3.65	1.95
	1993 - Nov. 1997	After *Nitella* Establishment	7.80	2.66	1.92
	Dec. 1997 - Dec. 2000	After North Ditch Diversion	0.03	1.14	0.74
Lower Link Lake	1987 - 89	*Nitella* Present	8.17	3.25	1.53
	1990 - 96	*Nitella* Absent	7.12	3.19	2.13
	1997 - 2000	*Nitella* Re-Establishing	2.96	1.60	0.98

Table 9: Comparison of Sediment to Vegetation Concentration, Rabbit Lake and Literature

Sediment / Terrestrial and Semi-aquatic Vegetation			
		U (ug/g)	Ra^{226} (Bq/g)
Rabbit Lake	Sediment	475 - 3830	0.53 - 54
	Vegetation	4.8 - 3070	0.11 - 17
Literature Range (Reference 1-3)	Sediment	0.1 - 11.2	0.022 - 0.041
	Vegetation	0.0005-0.06	$2x10^{-7}$ - 0.0621
Macrophytic Algae (Nitella Flexilis)			
Wollaston Lake Ivison Bay	1998	5.7	0.14
Upper Link Lake Above Narrow	1998	683-3070	2.5-9.4
	1988-1997	393-5020	5.0-50
Upper Link Lake Below Narrow	1988-1997	315-4150	9.6-43
BAD W20	1998	2380	5
	1988-1997	324-8730	1.2-60
Lower Link Lake	1988-1998	830-904	1.8-2.1

Ref 1: The Handbook of Trace Elements

Ref 2: Chemical Analysis of Ecological Materials

Ref 3: CRC Trace Elements in Soils and Plants

* The date of sampling are 1991-1992.

Table 10a: Elements in Biomass of Macrophytic Algae Biomass (Nitella flexilis)

parameter		year of sampling	W20 BAD	Upper Link Lake	Lower Link Lake	Wollaston Lake Ivison Bay
Element	Biomass (g,/m^2, dw)	1991-92	250	250	250	-
		1998	54.6	60.8	67.7	20
U	Element in biomass (ug/g)	1988-97	2710	2491	1277	-
		1998	2380	1365.5	867	5.7
	Element in biomass (kg/ha)	1988-97	6.78	6.23	n.m.	-
		1998	1.30	0.83	0.59	0.001
^{226}Ra	Element in biomass (Bq/g)	1988-97	13	22	2.7	-
		1998	5	7.13	1.95	0.14
	Element in biomass (MBq/ha)	1988-97	32.50	55.00	6.75	-
		1998	2.73	4.33	1.32	0.03

n.m. = not measured.

Table 10b: Elemental Concentration Range in Macrophytic Algae (Nitella flexilis)

Element	year of sampling	Parameter	W20 BAD	Upper Link Lake	Lower Link Lake	Wollaston Lake Ivison Bay
U	1988-97	N	22	28	19	-
		Range (ug/g)	324-8730	393-5020	637-3430	-
		Avg. (ug/g)	2710	2491	1277	-
	1998	N	1	4	2	1
		Range (ug/g)	2380	683-3070	830-904	5.7
		Avg. (ug/g)	2380	1365.5	867	5.7
^{226}Ra	1988-97	N	22	28	19	-
		Range (Bq/g)	1.2-60	5.0-50	0.6-9.5	-
		Avg. (Bq/g)	13	22	2.7	-
	1998	N	1	4	2	1
		Range (Bq/g)	5	2.5-10.0	1.8-2.1	0.14
		Avg. (Bq/g)	5	7.13	1.95	0.14

n.m. = not measured.

Table 11: ^{226}Ra and Uranium Concentrations in Periphyton and Phytoplankton

Area	Algal Group	^{226}Ra (Bq/g, dw)			U (ug/g, dw)			Year of Sampling
		N	Range	Avg.	N	Range	Avg.	
Wasterock Pond W3	Periphytic Cyanobacteria	6	9.0-21	14	6	607-1380	1131	1988-91
Wasterock Pond	Periphytic Cyanobacteria	6	5.5-10	8.6	6	380-1940	792	1989-91
BAD, W9 ULL, W18	Periphytic Chlorophyta	8	1.4-42	13	8	358-3160	1334	1988-91
Upper Link Lake	Phytoplankton (Cynobacteria)	2	0.25-0.80	0.5	2	147-344	246	1988-89

See Table 12 in Final Report 1993 'Ecological Engineering of The Rabbit Lake Drainage Basin' for source data.

Table 12a: Uranium and ^{226}Ra 14-year Accumulative in Sediment by Locations

Location	parameter	Uranium (ug/g)	^{226}Ra (Bq/g)
Upper Link Lake Delta (1986-1987) (1.05-4.0 m)	N	8	NM
	Max	60	NM
	Min	<10	NM
	Avg	n.a.	NM
Shallow - Deep Delta (1998)*	N	7	7
	Max	3620	54
	Min	490	6
	Avg	2030	24
Upper Link Lake Upper Basin (0-5cm & 10-15cm) (1999)	N	27	27
	Max	4760	54
	Min	178	0.85
	Avg	3321	20
Upper Link Lake Lower Basin (0-5cm) (1999)	N	10	10
	Max	8390	13
	Min	2850	3.6
	Avg	5082	7.1
Wetland below sedimentation dam (1988)	N	6	6
	Max	753	1.87
	Min	53	0.12
	Avg	232	0.55
Lower Link Lake (0-5cm) (1999)	N	8	8
	Max	2220	2
	Min	1280	1.3
	Avg	1749	2

n.a.: 7 out of 8 samples are <10.

Table 12b: Uranium and ^{226}Ra 10-year Accumulative in Sediment at Wetland

Location	parameter	Uranium (ug/g)	^{226}Ra (Bq/g)
Wetland below sedimentation dam (1988)	N	7	7
	Max	2980	6
	Min	53	0.12
	Avg	624	1.32
BAD (1998)	N	1	1
	Max	3750	4.8
	Min	3750	4.8
	Avg	3750	4.8

NM = Not Measured

* Two Sept/98 samples from above and below narrows contained 3830 and 2270 ug/g U; 33 and 6.2 Bq/g ^{226}Ra, respectively, which were not taken into the calculations.

Table 12c: Physical Charateristics of Sediments from Rabbit Lake Drainage Basin

Location	Depth (m)	Texture	Number of samples	pH			Moisture (%)			L.O.I. %		
				Min.	Max.	Avg	Min.	Max	Avg	Min.	Max	Ave.
Upper Link Lake Delta (1986-1987)	1.05-4.0 (core)	claylike organics	11	4.16	5.37	4.87	moist - very wet*			11.51	37.61	26.5
Shallow - Deep Delta (1998)	0-0.1 (Eckmann)	silt - clay	7	6.22	6.72	6.47	23.3	61.3	44.5	1.62	7.31	**4.24**
Upper Link Lake Upper Basin (1999)	0-5cm 10-15cm	silt - clay	27	no data given			60.4	90	80.5	2.2	33	**11.9**
Upper Link Lake Lower Basin (1999)	0-5cm	silt - clay	10	no data given			81.6	94.6	89.2	17	25.7	**21.1**
Lower Link Lake (1999)	0-5cm	silt - clay	8	no data given			82.3	93.5	90.3	24.9	34.6	29.3
Wetland below sedimentation dam (1998)	0-0.1 (Eckmann)	fine peat and organics	5	6.4	6.67	6.58	63.1	88.0	82.1	14.37	48.4	30.2

* Due to long storage, the moisture content was not determined.

See Appendix 1, table 3-6 and 18 for source data.

The bold numbers are converted from TOC (L.O.I. % = 2.12306 x TOC % +1.14930).

Table 13: Environmental Concentration Ranges in Canadian Waters (CCREM, 1987) and

General Trophic Classification of Lakes and Reservoirs in Relation to P and N (Wetzel, 1983)

Environmental Concentration Ranges in Canadian Waters, Western Canda (CCREM, 1987)	NO_3 as N Prior to 1980: 1195 samples		NH_4 as N 1980-1984: 1816 samples		PO_4 as P 1980-1985: 7324 samples	
	mg/l	uM	mg/l	uM	mg/l	uM
	0.023-8.814	0.102 - 39.03	0.011 - 1.56	0.786 - 111.43	0.001 - 1.0	0.0105 - 10.526

General Trophic Classification of Lakes and Reservoirs in Relation To P and N (from Wetzel, 1983)		Total Nitrogen as N		PO_4 as P 1980-1985: 7324 samples	
		mg/l	uM	mg/l	uM
	oligotrophic	0.307 - 1.630 (n=11)	2.843 - 15.093	0.003 - 0.018 (n=21)	0.0316 - 0.189
	Mesotrophic	0.361 - 1.387 (n=8)	3.343 - 12.843	0.011 - 0.096 (n=19)	0.116 - 1.011
	Eutrophic	0.393 - 6.10 (n=37)	0.639 - 56.481	0.016 - 0.386 (n=71)	0.168 - 4.063
	Hypereutrophic	no values given		0.750 - 1.200 (n=2)	7.895 - 12.632

Table 14: Biologically-Mediated Reactions in the Nitrogen Cycle (after Paul & Clark, 1989).

Process	Source	Reaction	Organisms	Metabolism
Nitrogen Fixation	N_2 nitrogen gas	$N_2 + 8H^+$? $2\ NH_4^+$	Cyanobacteria Rhizobium, etc.	Aerobic/anaerobic autotrophs/heterotrophs
Nitrification	NH_4^+ ammonium	$2NH_3 + O_2$? $2NH_2OH$ hydroxylamine	Nitrosococcus	Aerobic chemoautotroph
	NH_2OH hydroxylamine	$NH_2OH + O_2$? $HNO_2 + H_2O$ nitrous acid	Nitrosomonas	Aerobic chemoautotroph
	NO_2^- nitrite	$2NO_2^- + O_2$? NO_3^- nitrate	Nitrobacter	Aerobic chemoautotroph
Denitrification	NO_3^- nitrate	NO_3^-? NO_2^-? N_2O? N_2 gas	Pseudomonas Alcaligenes	Facultative/anaerobic auto/heterotrophs
Dissimilatory Nitrate Reduction	NO_3^-	NO_3^- ? NO_2^- ? NH_4^+	Clostridium	Anaerobic heterotrophs
Ammonia Catabolism	NH_4^+	NH_4^+ ? Amino acids,	Bacteria, fungi, plants nucleic acids, chitins, etc.	
Ammonification	Proteins	Protein ? amino acid ? ammonium	Bacteria, fungi, plants, animals	
Assimilatory Nitrate Reduction	NO_3^-	NO_3^-? NH_4^+ ? catabolic products	Bacteria, fungi, plants	

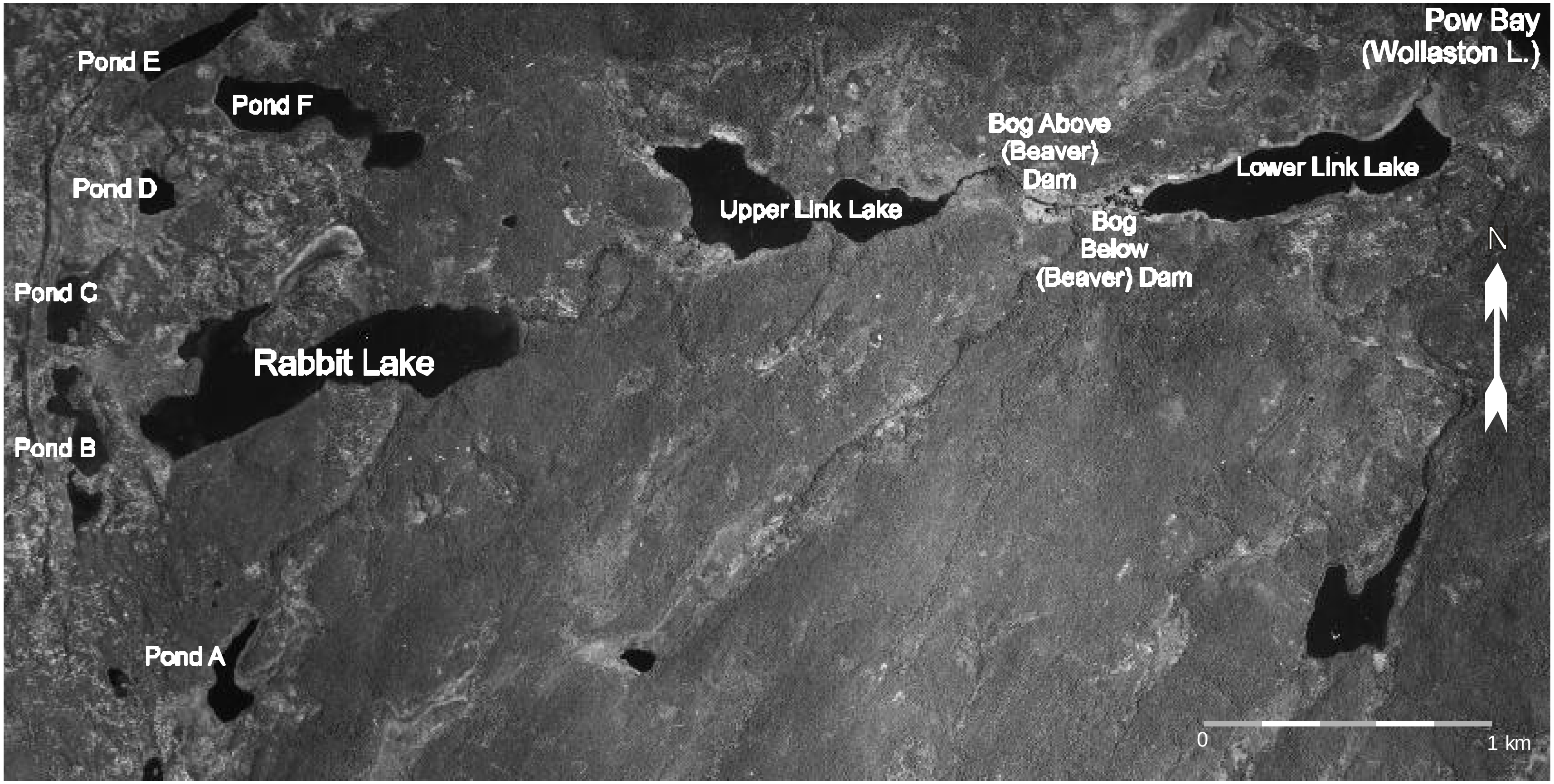


Figure1: Aerial View ofRabbitLakeVicinityin1955.

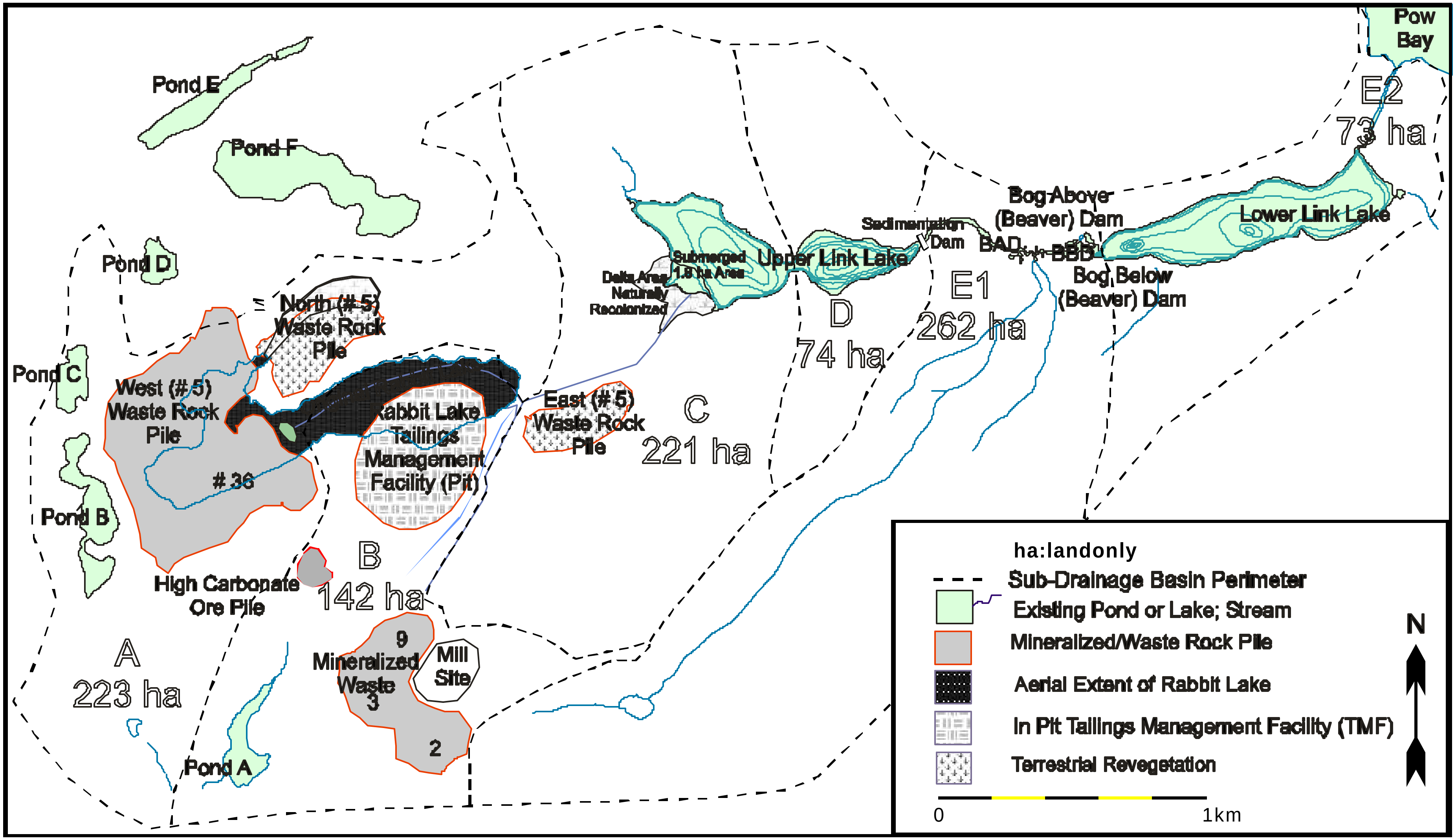


Figure 2: Rabbit Lake Drainage Basin Existing Lay-out (1999).

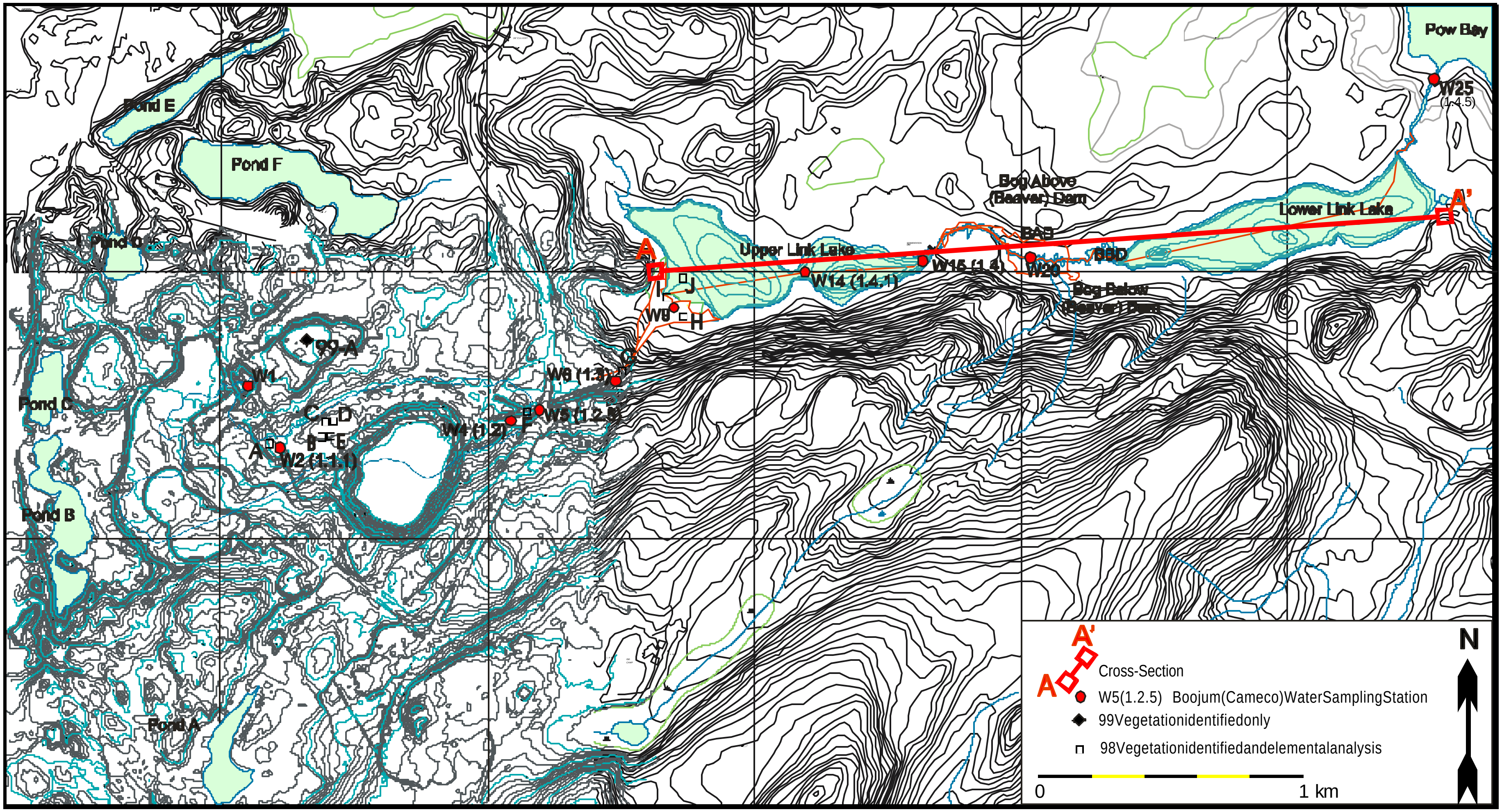
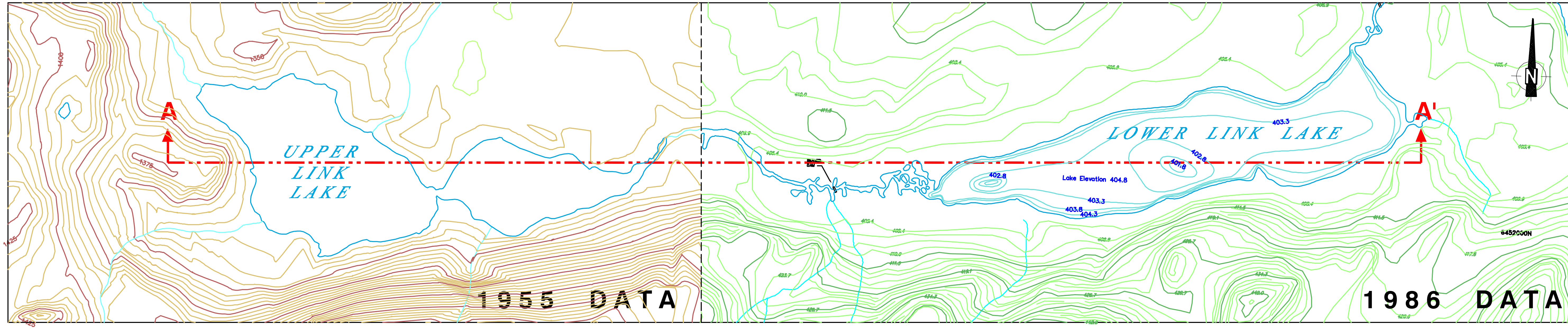
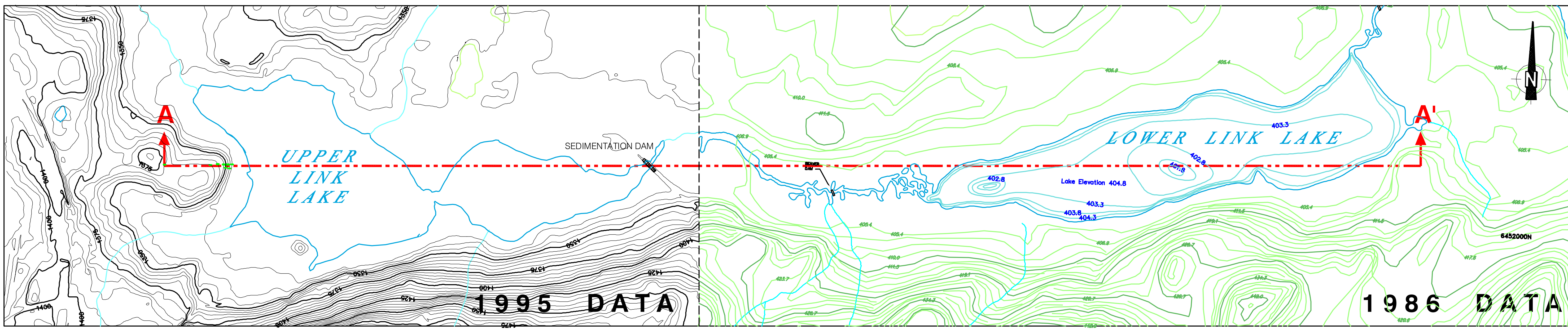
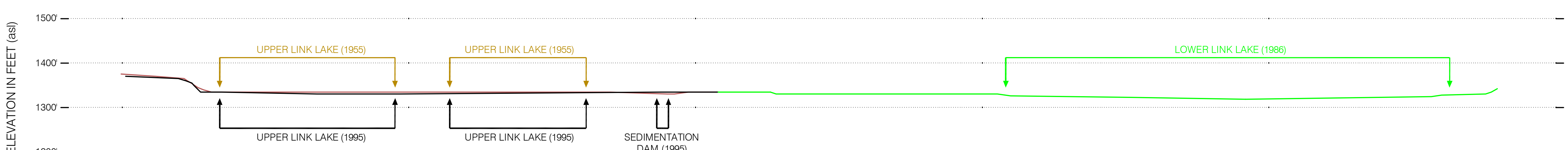


Figure 3: RabbitLake drainagebasintopography (composite of twoaerialinterpretations),including vegetation and watersampling locations,andlocations ofcrosssections.







CROSS SECTION A - A'

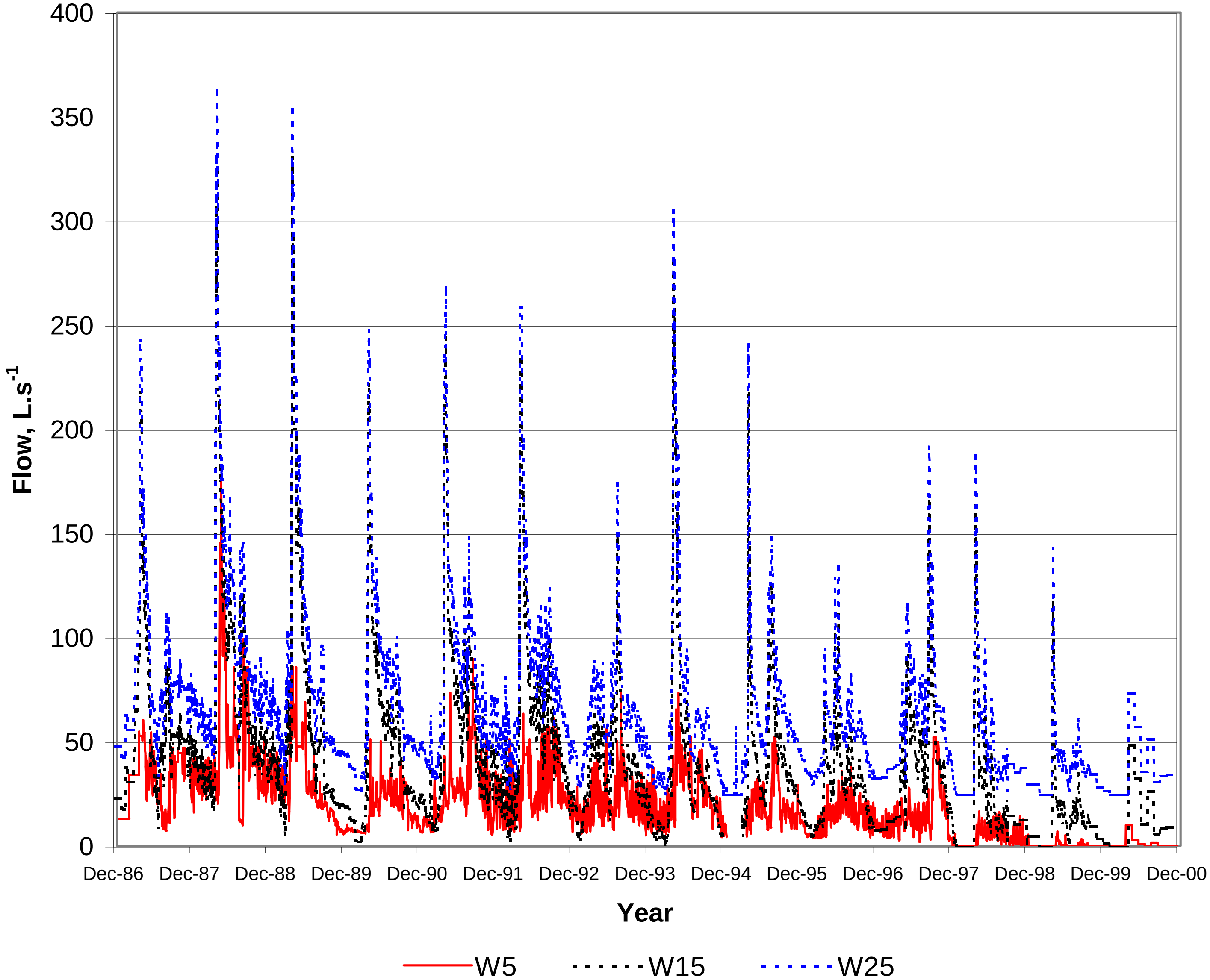
NOTE:
Bathymetry was taken from ecological engineering of Rabbit Lake drainage basin 1988-1993 evaluation report (1994)

Cameco

RABBIT LAKE PROJECT
1955 DATA VS 1995 DATA
SECTION A-A'
Figure 4

Compiled:	BILL ZELJEZNAK	**Dwg. No.:**	MIS99032
Drafted:	WALLY HARILDSTAD	**Date:**	99/09/02
Scale:	1:10,000	**Geo. Ref.:**	
NTS Ref.:	64L/4	**Source:**	

Fig. 5: Daily Flows Used For Load Estimates
Airport Road (W5), Sed Dam (W15), LL Outflow (W25)



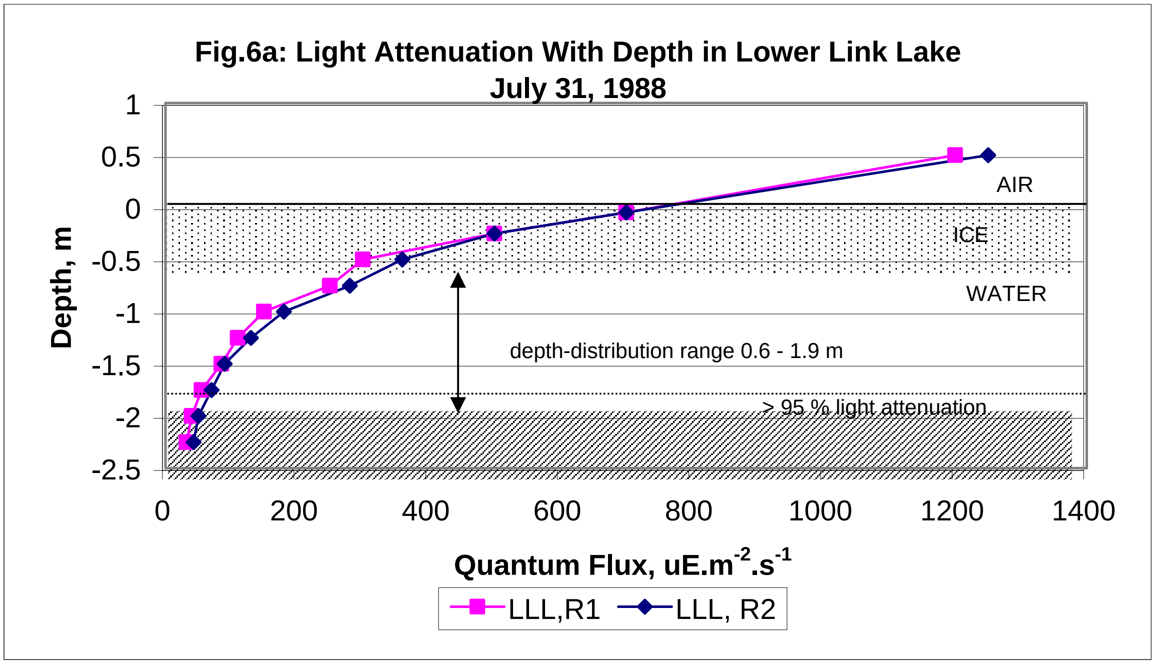


Fig.6a: Light Attenuation With Depth in Lower Link Lake
July 31, 1988
Depth, m
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
AIR
ICE
WATER
depth-distribution range 0.6 - 1.9 m
> 95 % light attenuation
0
200
400
600
800
1000
1200
1400
Quantum Flux, uE.m-2.s-1
LLL,R1
LLL, R2

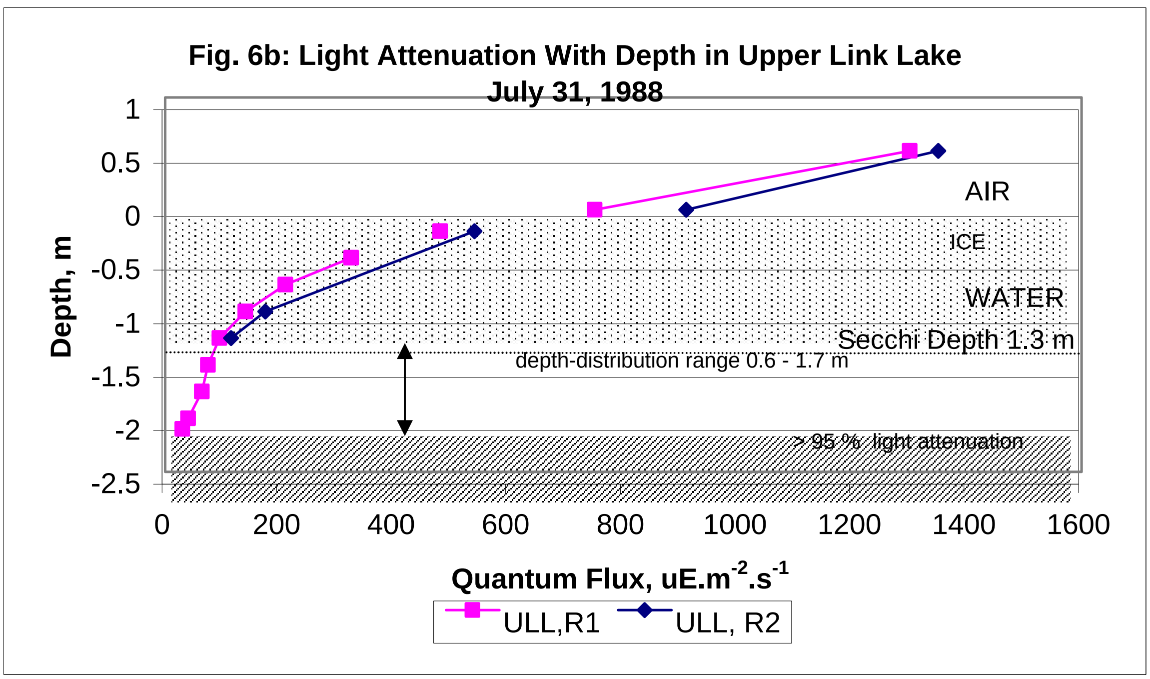
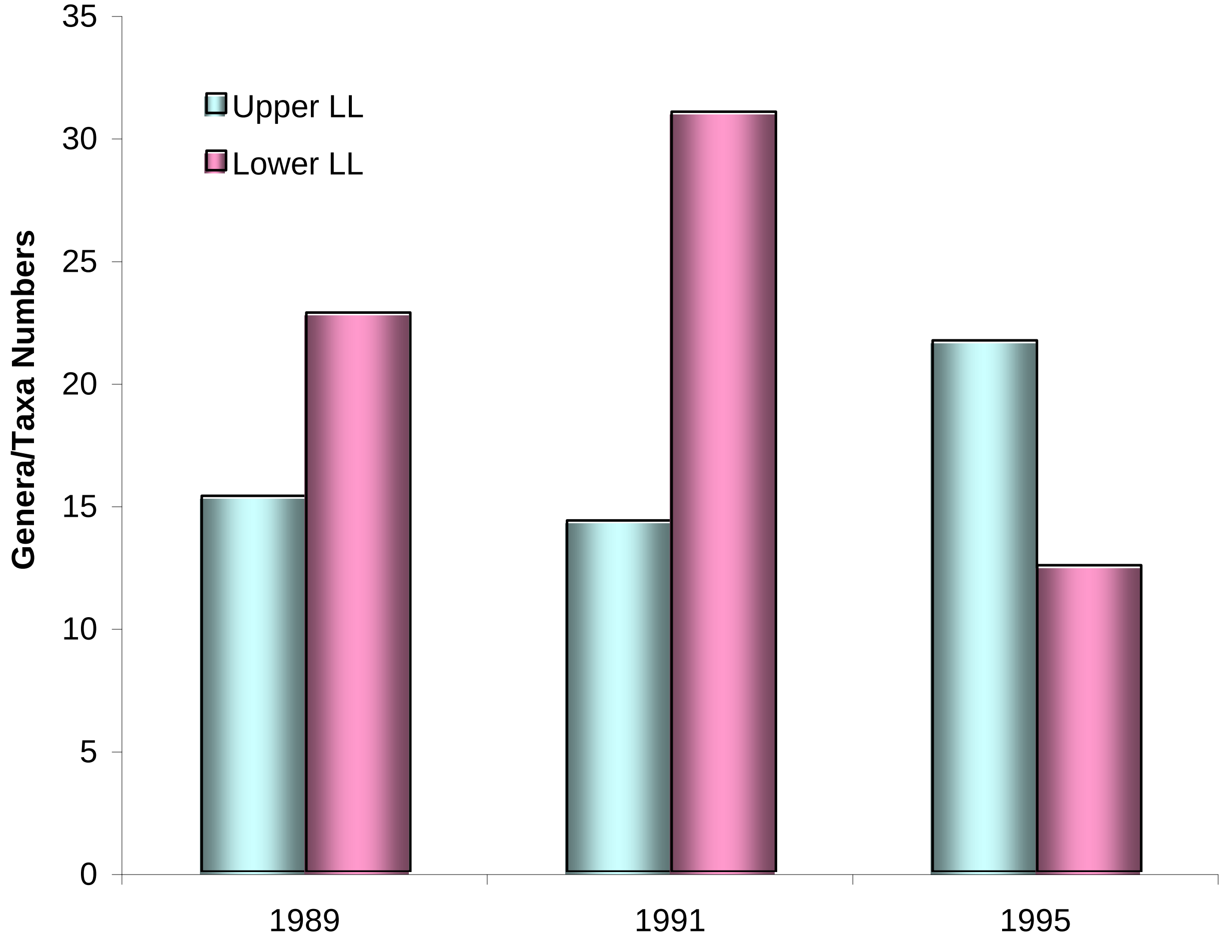
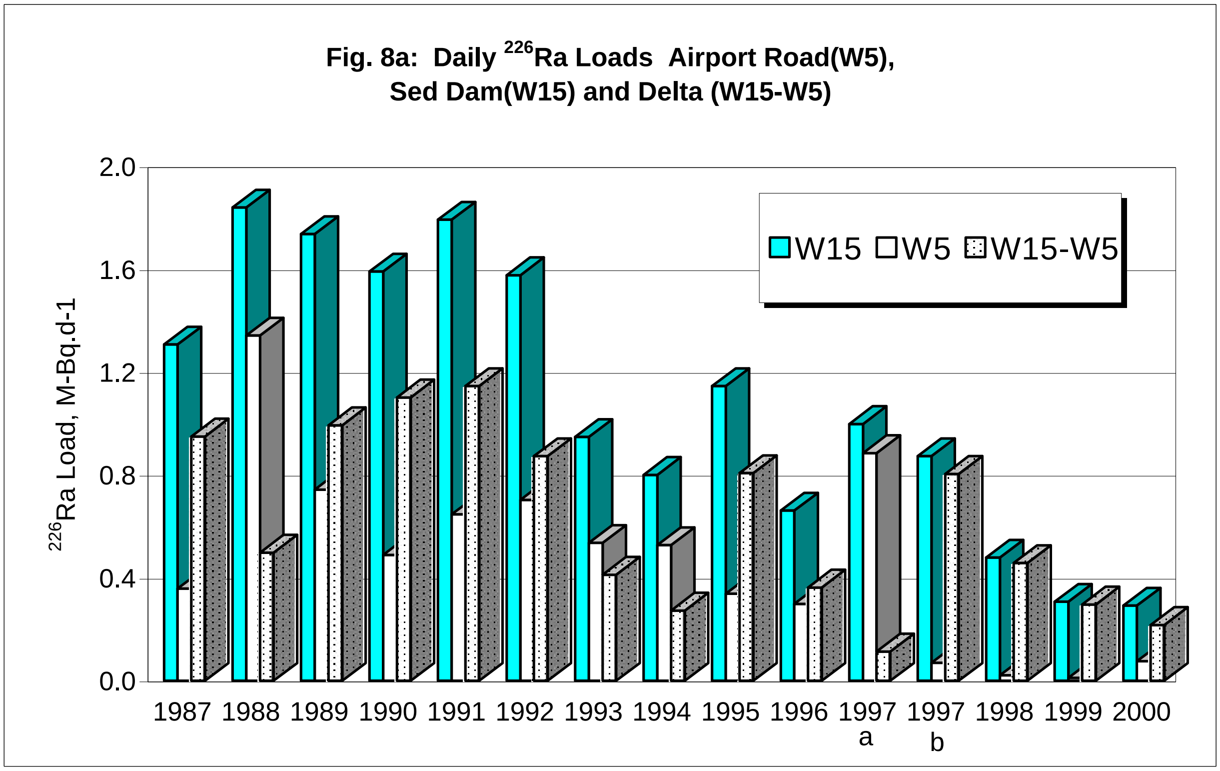
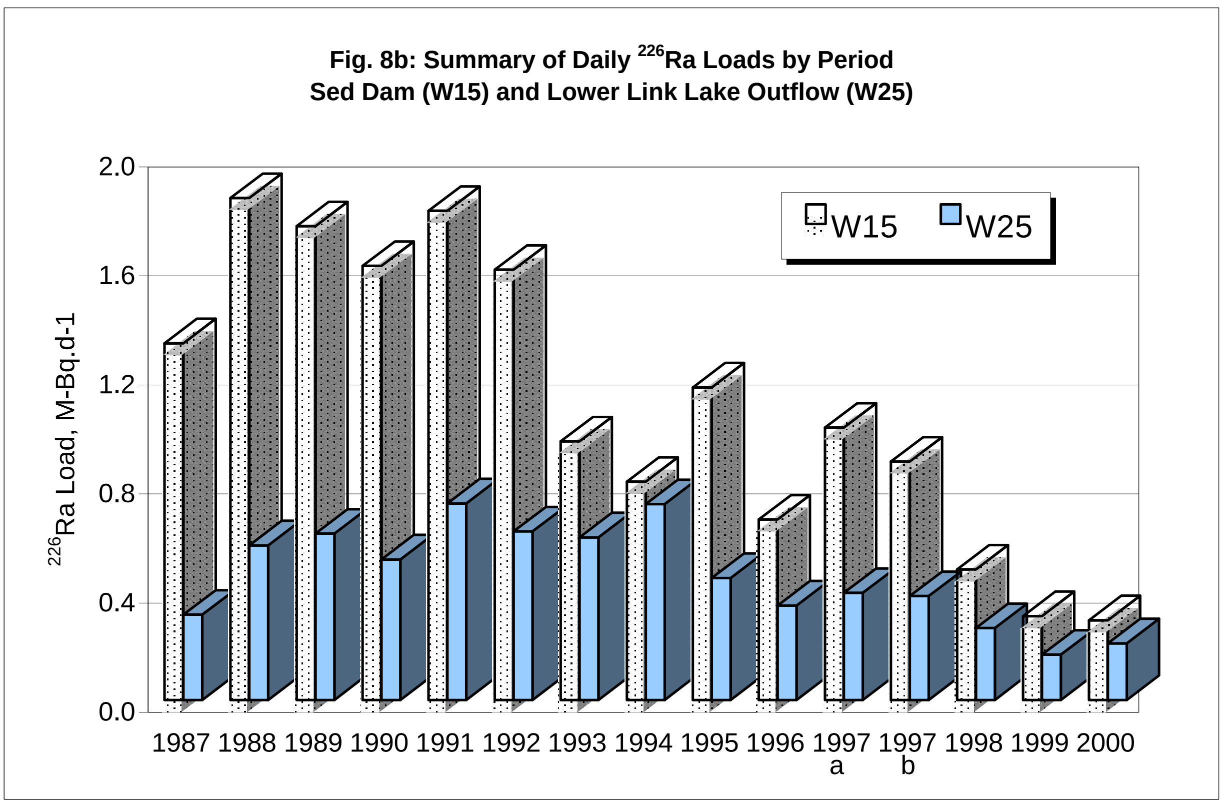


Fig. 6b: Light Attenuation With Depth in Upper Link Lake
July 31, 1988
Depth, m
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
AIR
ICE
WATER
Secchi Depth 1.3 m
depth-distribution range 0.6 - 1.7 m
> 95 % light attenuation
0
200
400
600
800
1000
1200
1400
1600
Quantum Flux, uE.m-2.s-1
ULL,R1
ULL, R2

Figure 7 : Genera/Taxa Richness in Upper and Lower Link Lakes (1989,1991 and 1995)







1997a: before diversion; 1997b: after diversion.

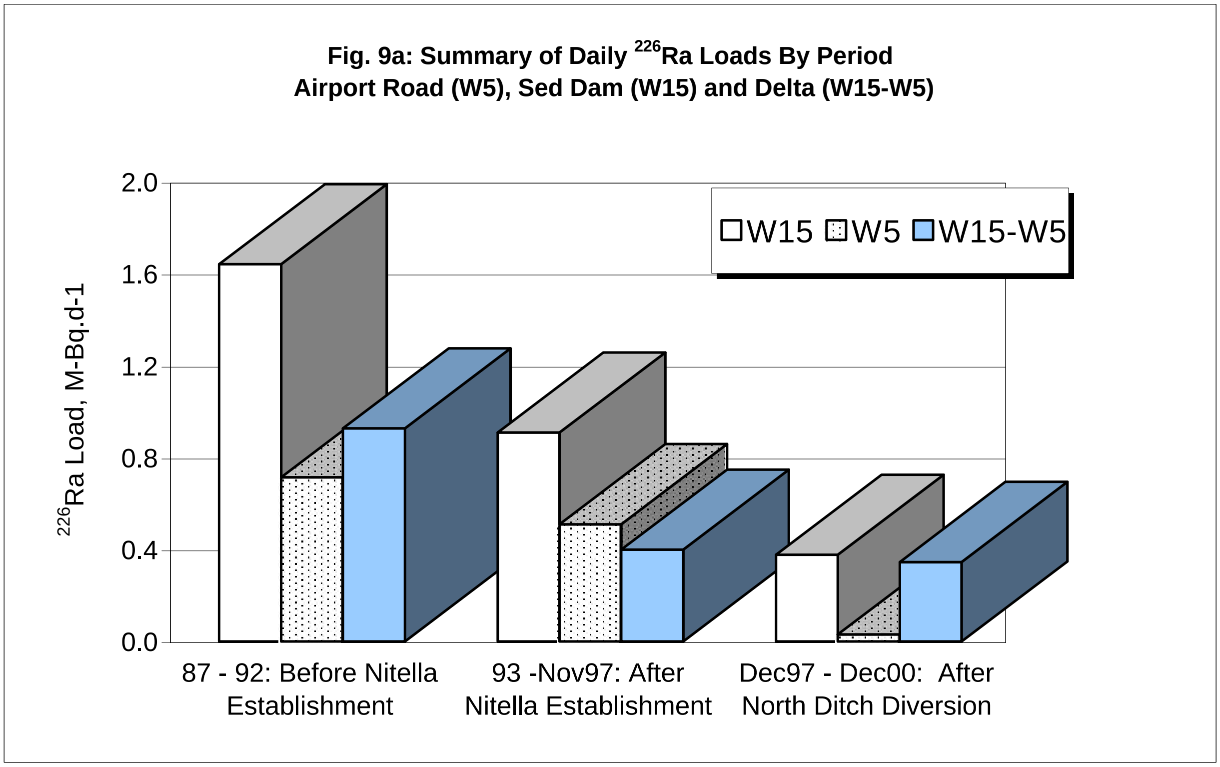


Fig. 9a: Summary of Daily 226Ra Loads By Period
Airport Road (W5), Sed Dam (W15) and Delta (W15-W5)
W15
W5
W15-W5
226Ra Load, M-Bq.d-1
2.0
1.6
1.2
0.8
0.4
0.0
87 - 92: Before Nitella Establishment
93 -Nov97: After Nitella Establishment
Dec97 - Dec00: After North Ditch Diversion

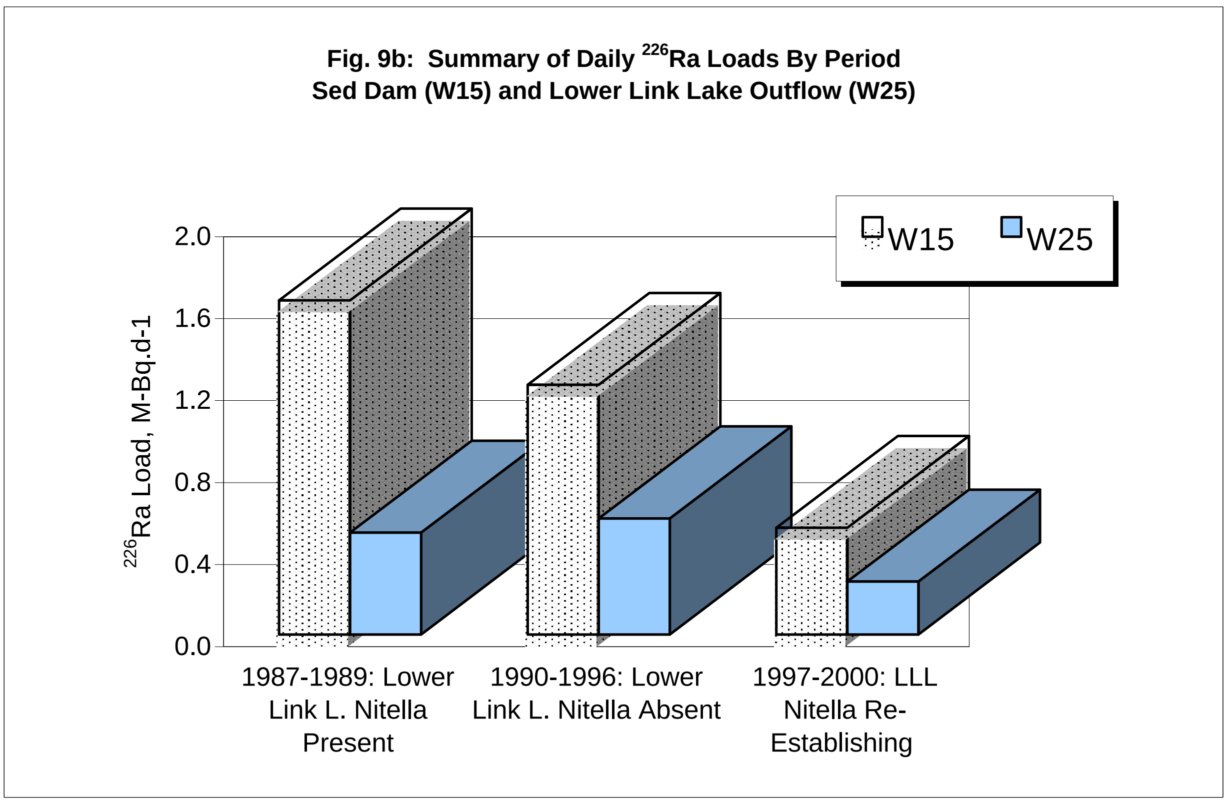


Fig. 9b: Summary of Daily 226Ra Loads By Period
Sed Dam (W15) and Lower Link Lake Outflow (W25)
W15
W25
226Ra Load, M-Bq.d-1
2.0
1.6
1.2
0.8
0.4
0.0
1987-1989: Lower Link L. Nitella Present
1990-1996: Lower Link L. Nitella Absent
1997-2000: LLL Nitella Re-Establishing

Fig. 10a: Daily Uranium Loads
Airport Road (W5), Sed Dam(W15) and Delta (W15-W5)

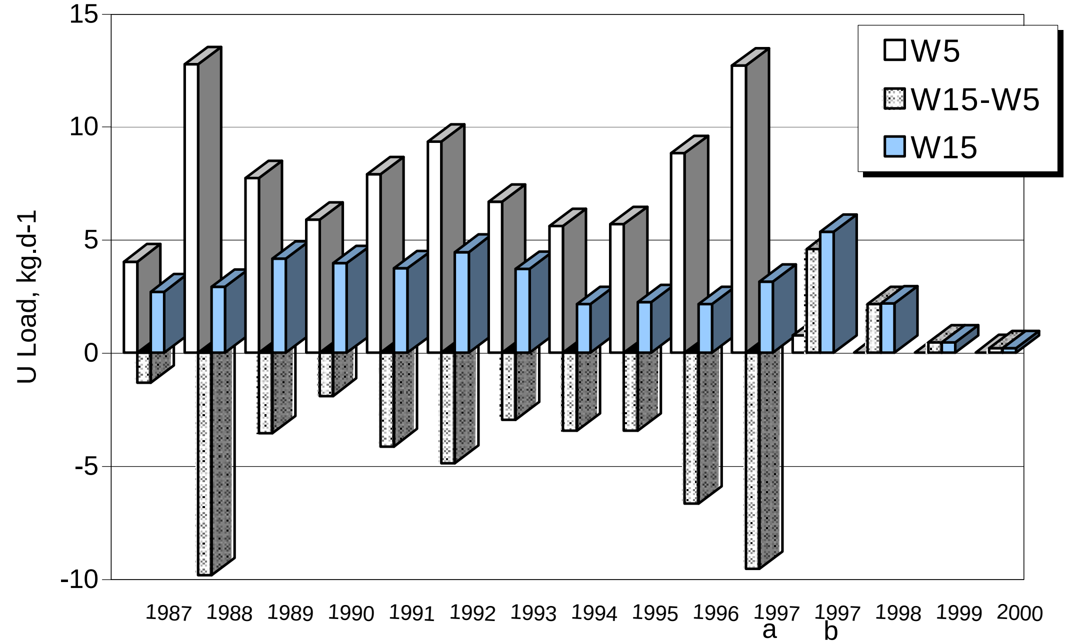
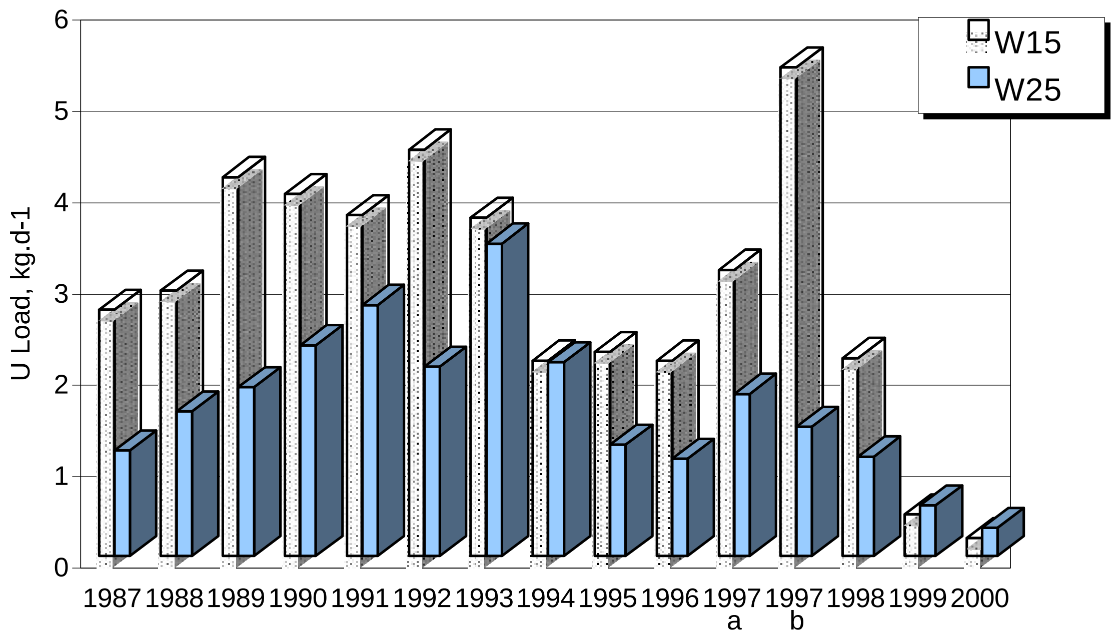


Fig. 10b: Summary of Daily Uranium Loads by Period
Sed Dam (W15) and Lower Link Lake Outflow (W25)



1997a: before diversion; 1997b: after diversion.

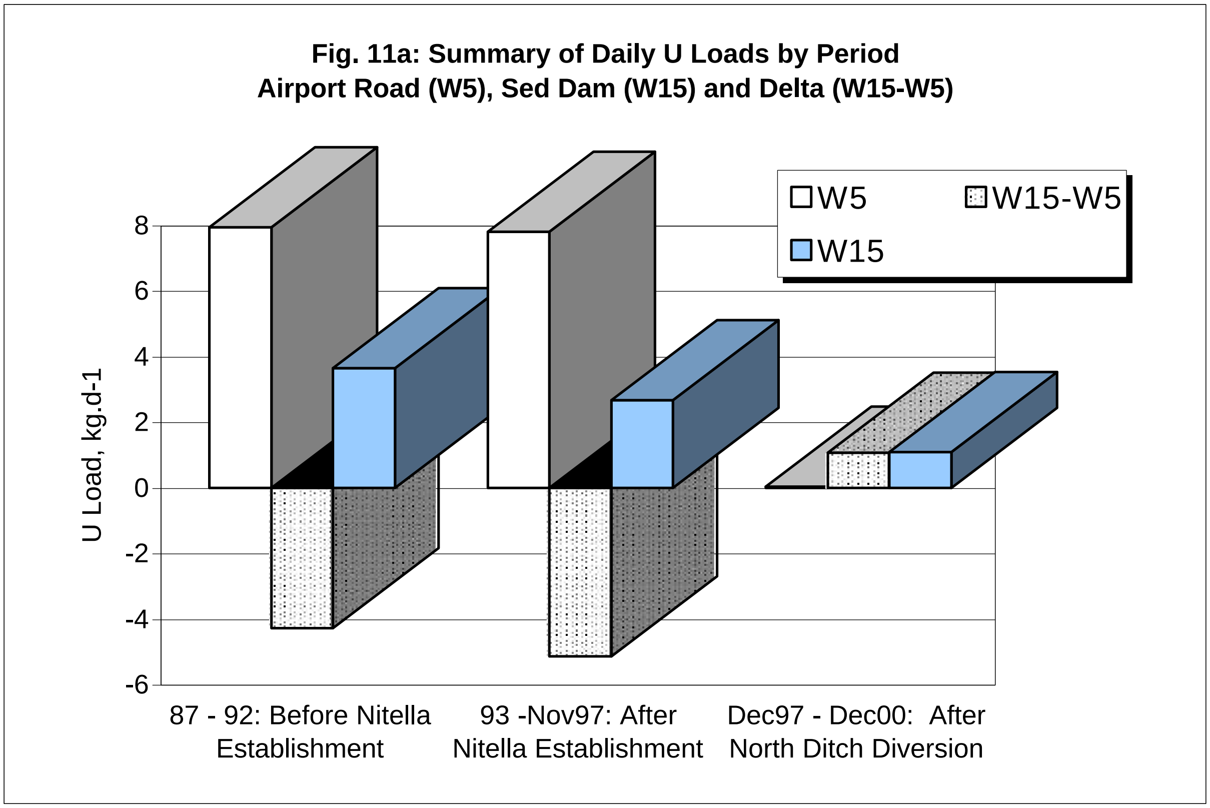


Fig. 11a: Summary of Daily U Loads by Period
Airport Road (W5), Sed Dam (W15) and Delta (W15-W5)
W5
W15-W5
W15
U Load, kg.d-1
8
6
4
2
0
-2
-4
-6
87 - 92: Before Nitella Establishment
93 -Nov97: After Nitella Establishment
Dec97 - Dec00: After North Ditch Diversion

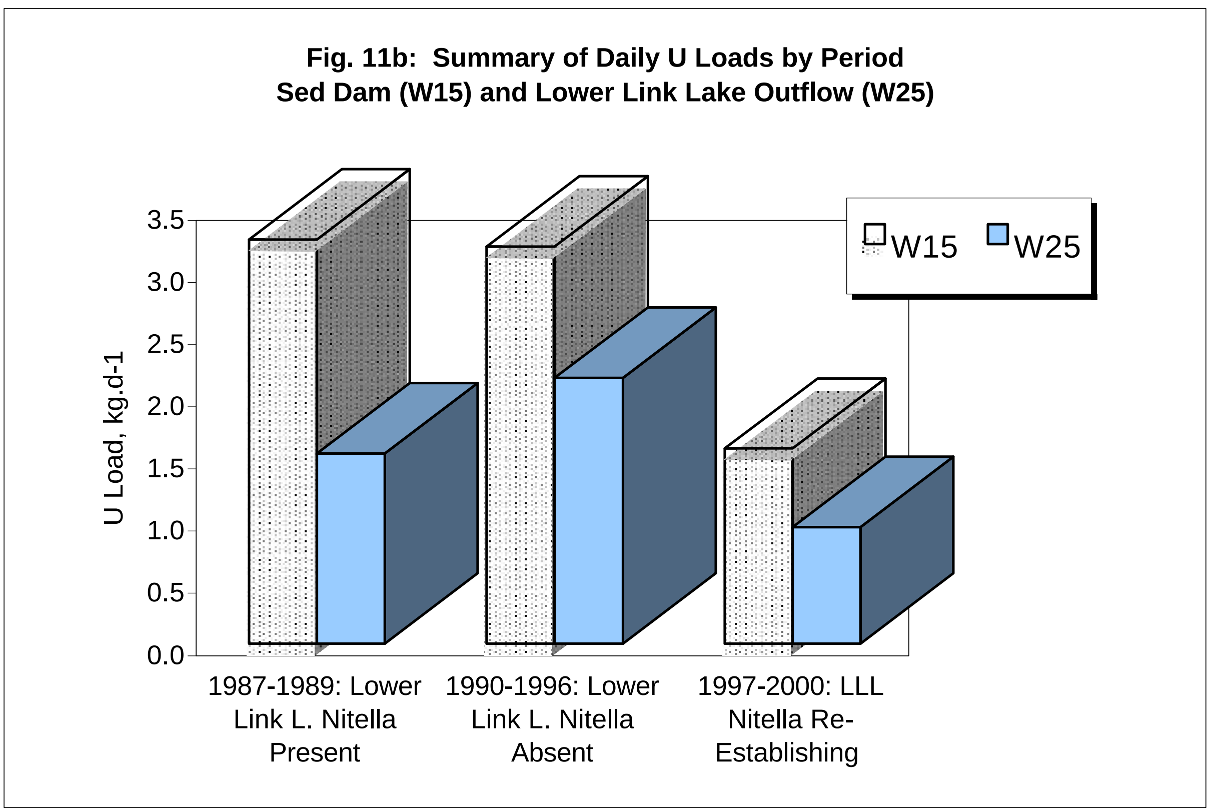


Fig. 11b: Summary of Daily U Loads by Period
Sed Dam (W15) and Lower Link Lake Outflow (W25)
W15
W25
U Load, kg.d-1
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1987-1989: Lower Link L. Nitella Present
1990-1996: Lower Link L. Nitella Absent
1997-2000: LLL Nitella Re-Establishing

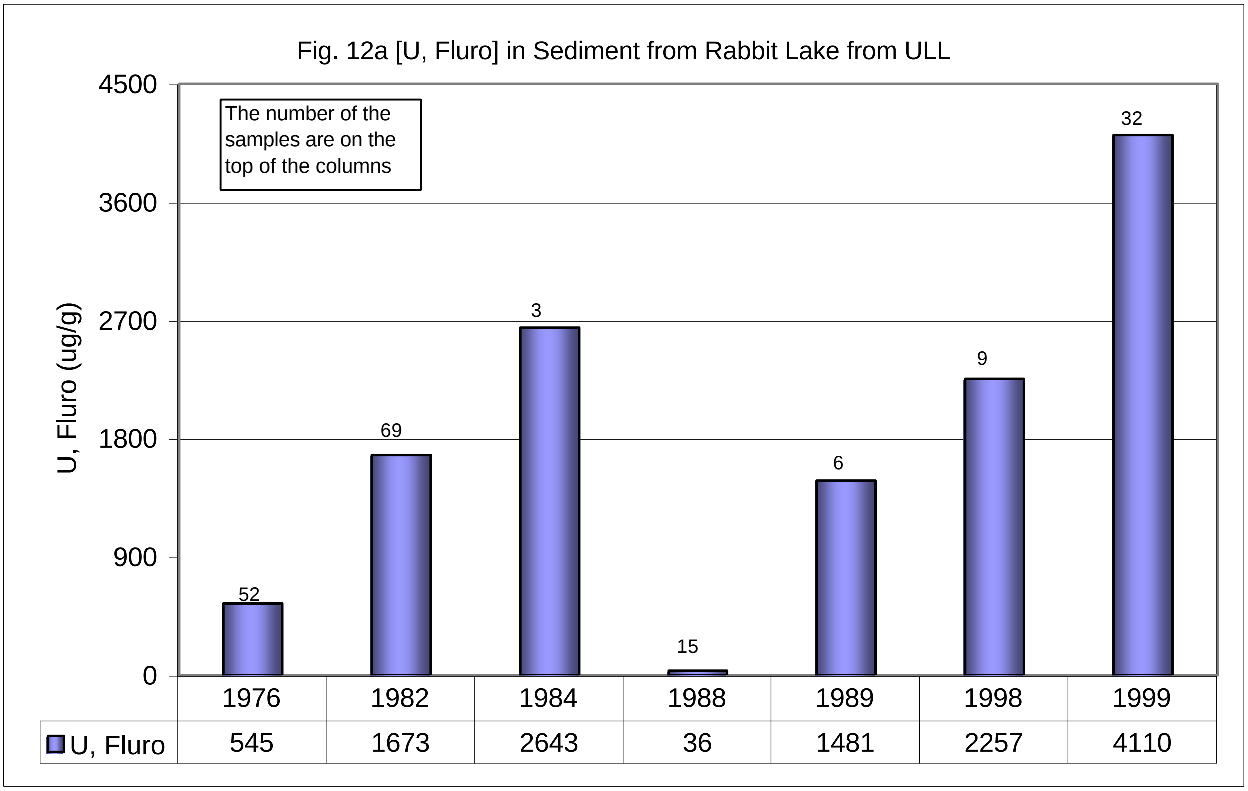


Fig. 12a [U, Fluro] in Sediment from Rabbit Lake from ULL
U, Fluro (ug/g)
4500
3600
2700
1800
900
0
The number of the samples are on the top of the columns
52
69
3
15
6
9
32
1976
1982
1984
1988
1989
1998
1999
U, Fluro
545
1673
2643
36
1481
2257
4110

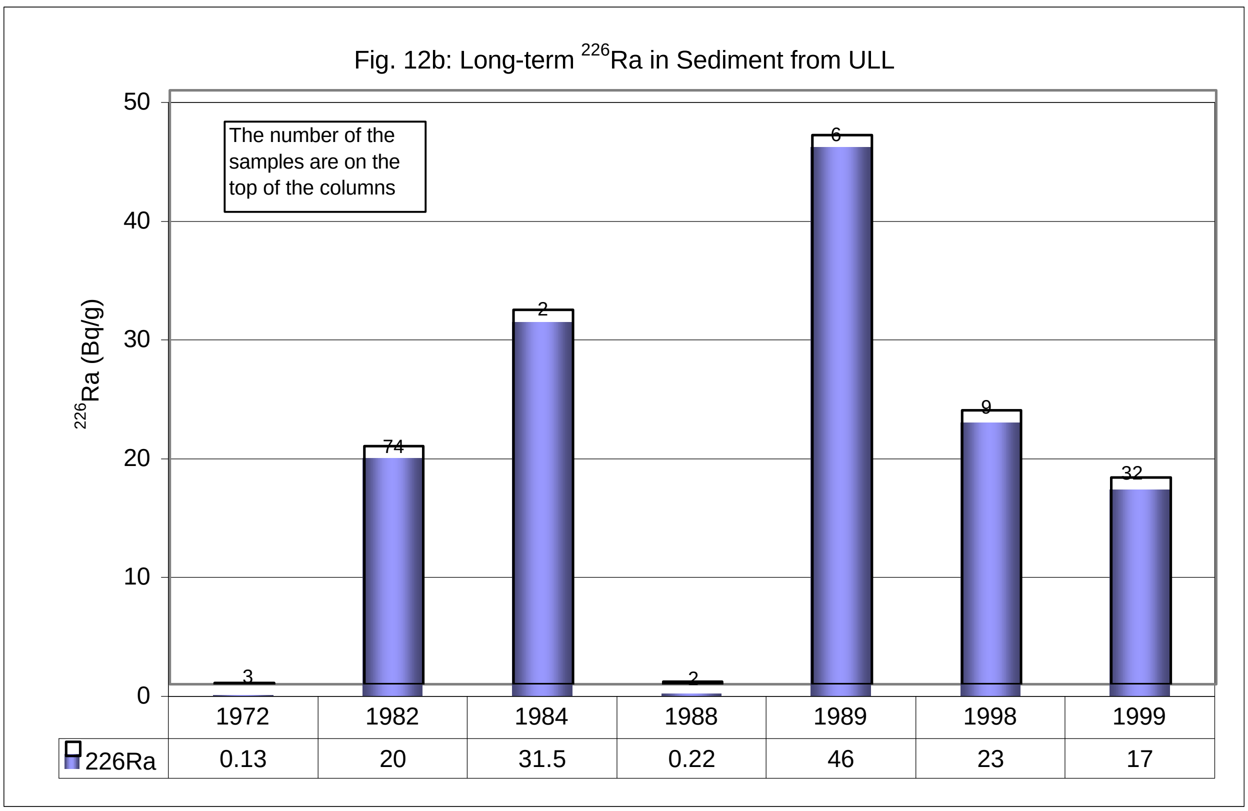


Fig. 12b: Long-term 226Ra in Sediment from ULL
226Ra (Bq/g)
50
40
30
20
10
0
The number of the samples are on the top of the columns
3
74
2
2
6
9
32
1972
1982
1984
1988
1989
1998
1999
226Ra
0.13
20
31.5
0.22
46
23
17

Fig. 13a: ^{226}Ra in Sediments (0-5cm) from ULL (1999)

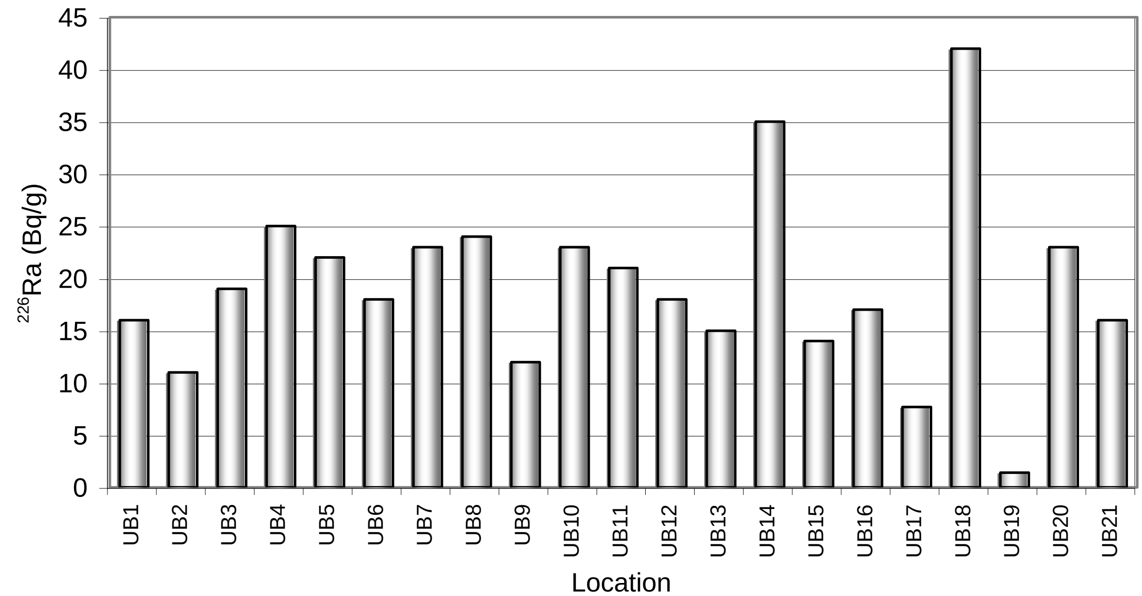
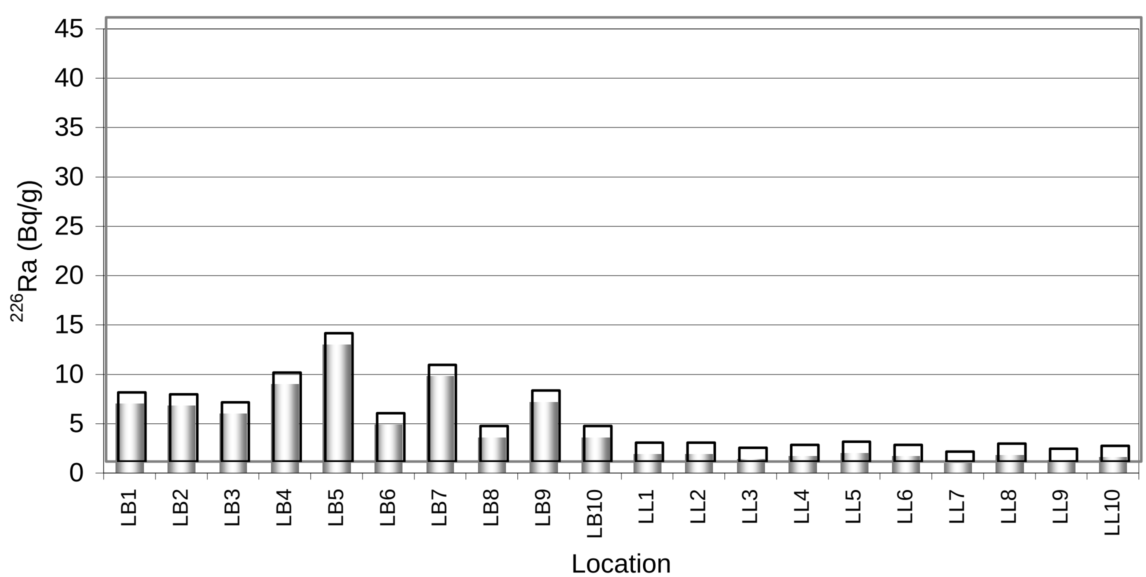
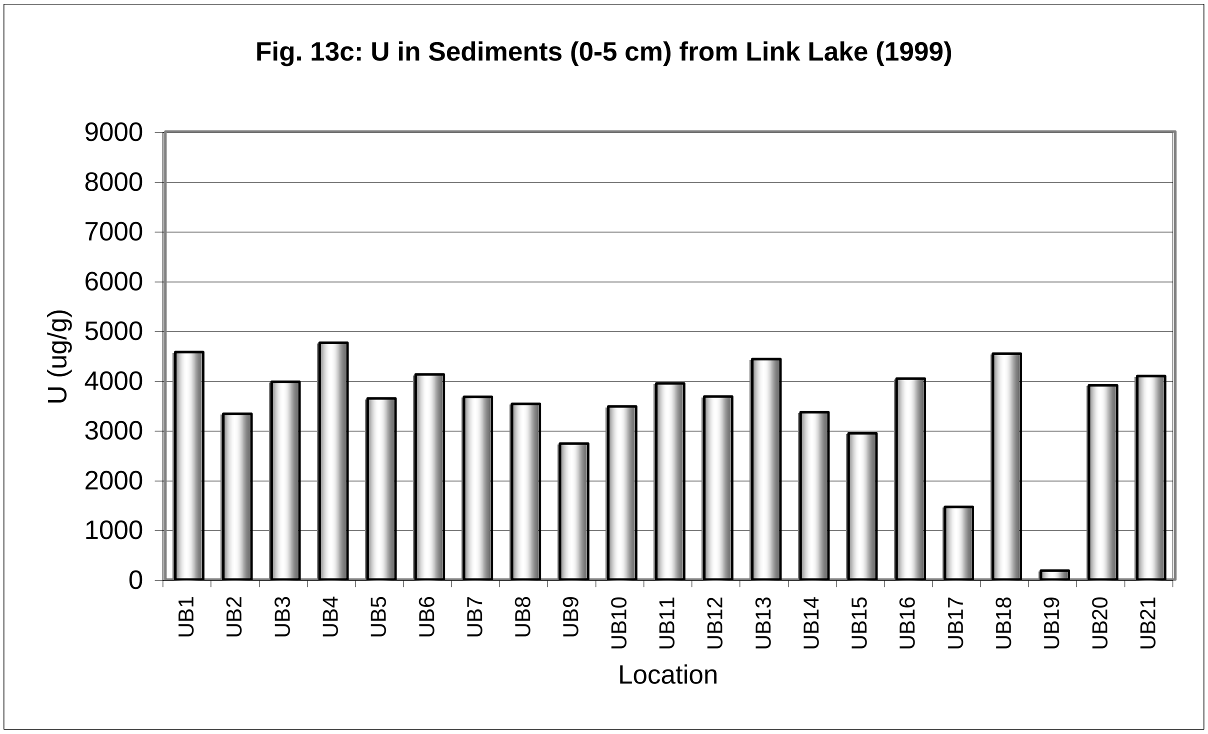
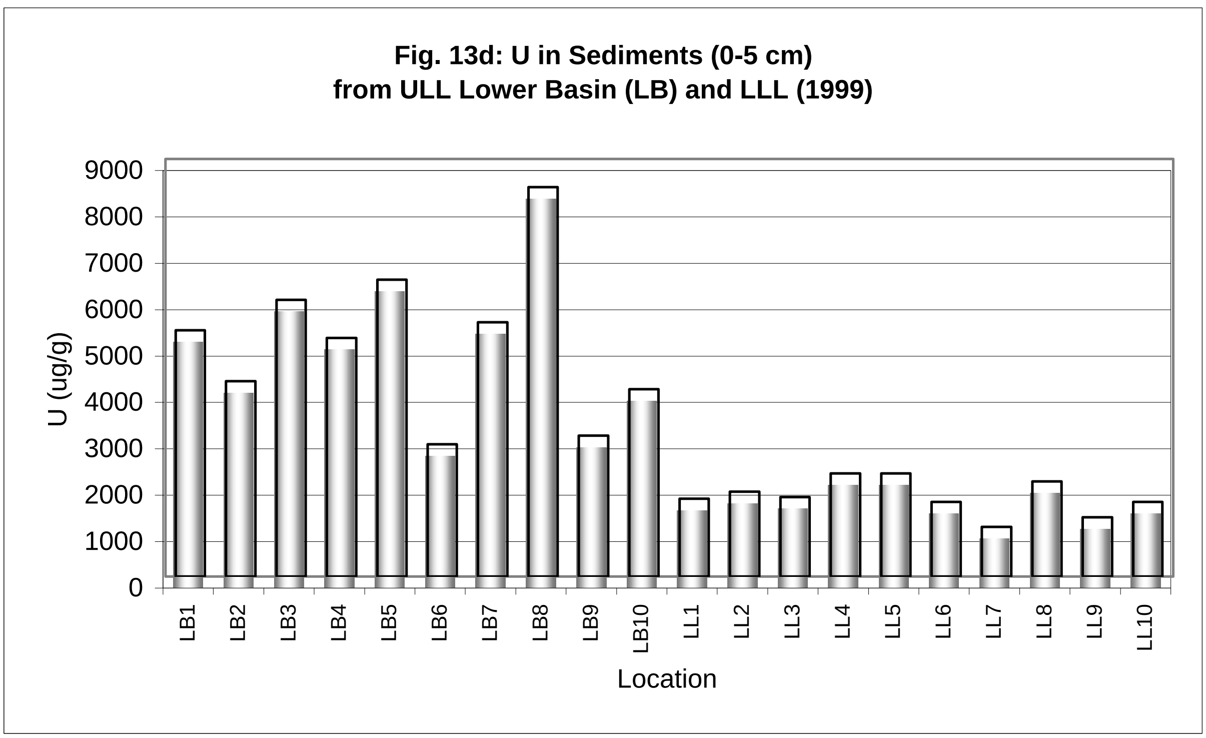


Fig. 13b: ^{226}Ra in Sediments (0-5 cm) from ULL Lower Basin (LB) and LLL (1999)

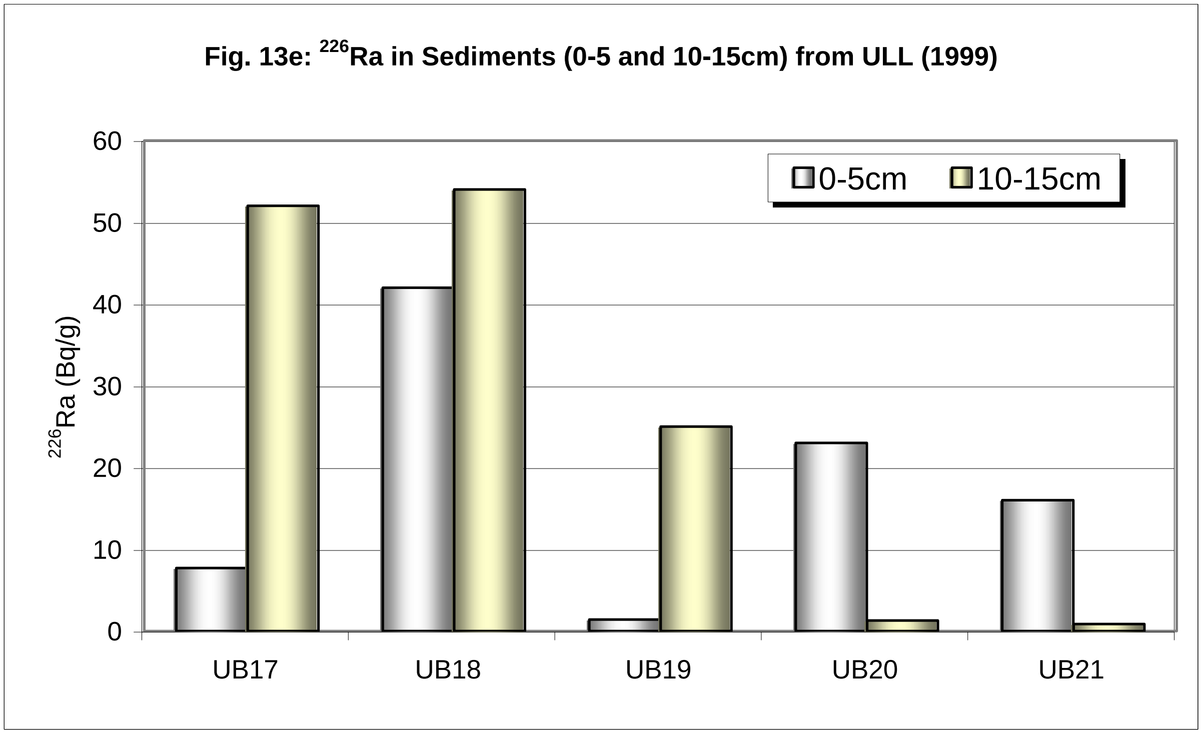


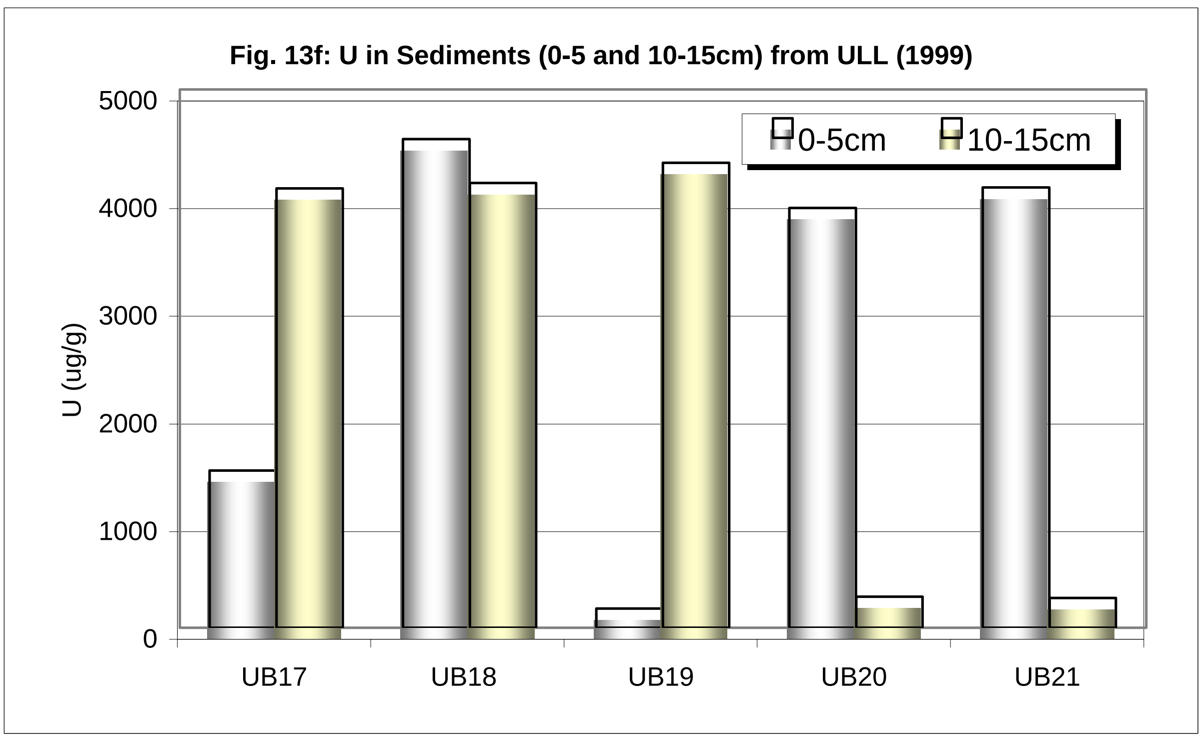
Maps for sampling location in Appendix 1 on page 160 and 162.





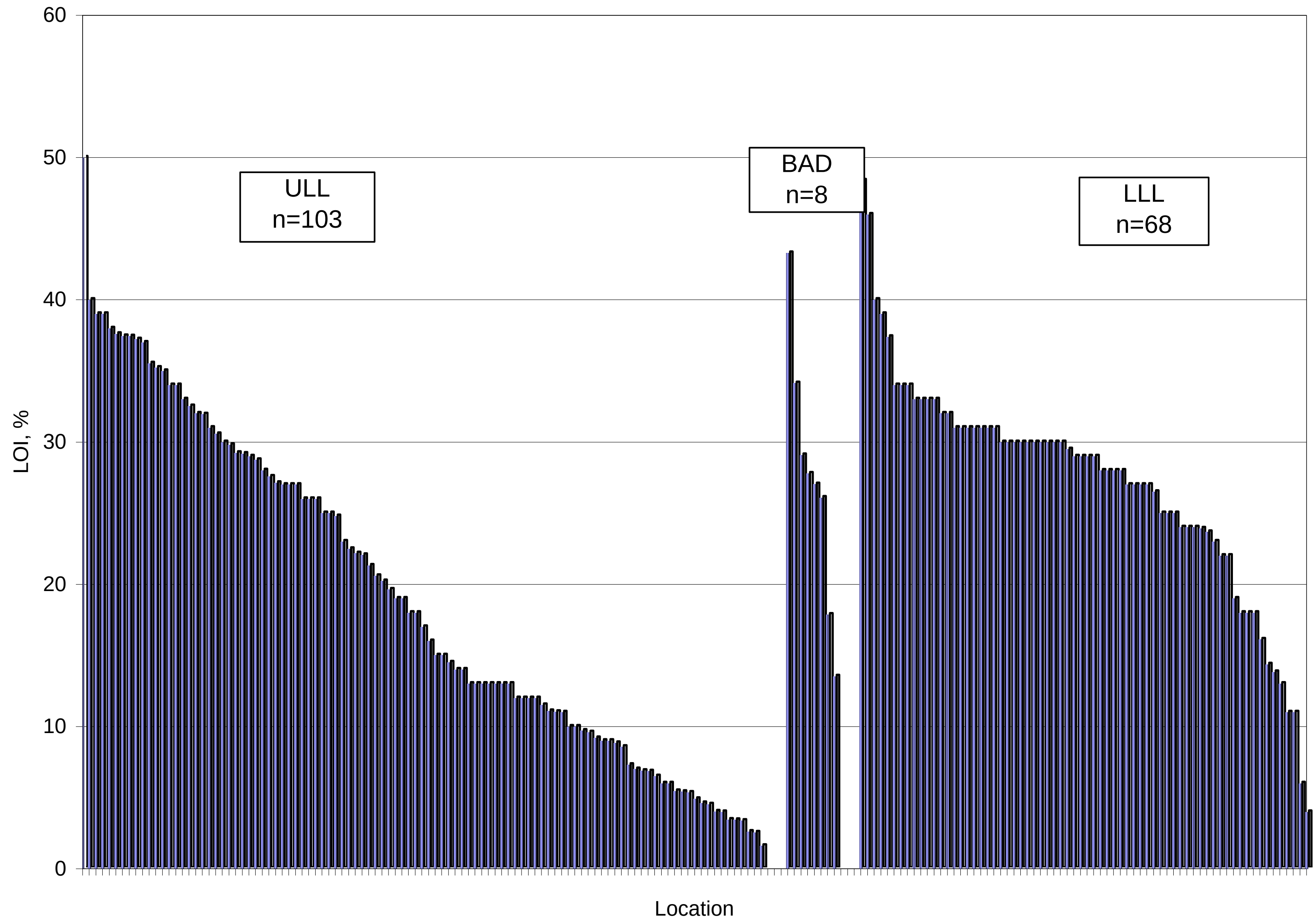
Maps for sampling location in Appendix 1 on page 160 and 162.





Map for sampling location in Appendix 1 on page 160.

Fig. 14: L.O.I. in Link Lake Sediments (All Samples)



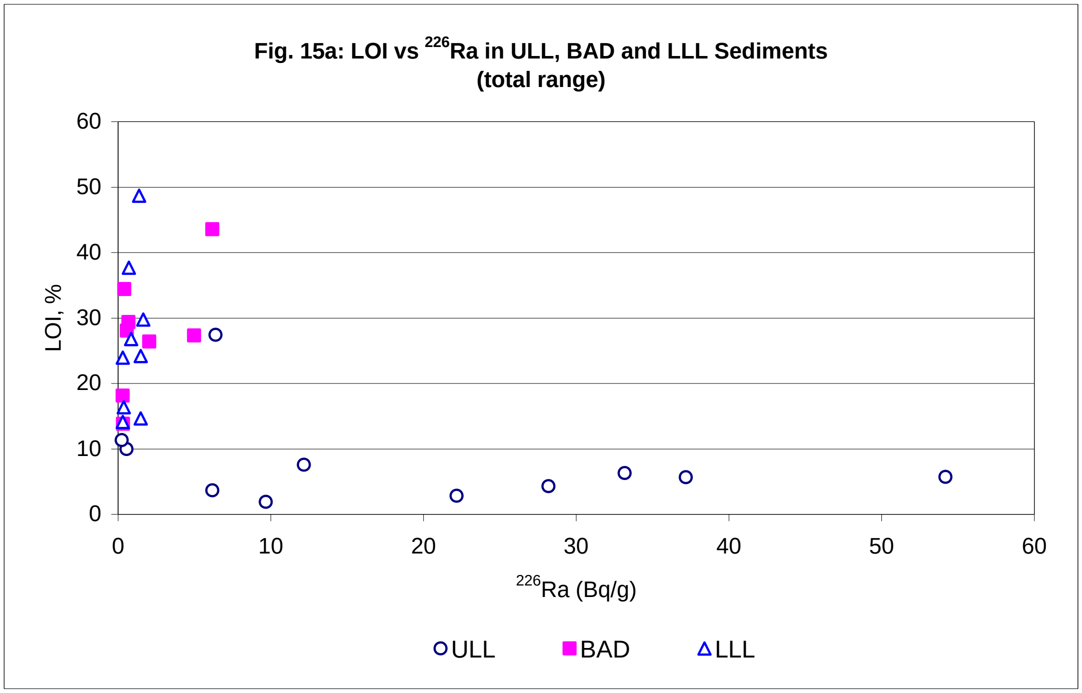


Fig. 15a: LOI vs 226Ra in ULL, BAD and LLL Sediments
(total range)
LOI, %
226Ra (Bq/g)
60
50
40
30
20
10
0
0
10
20
30
40
50
60
ULL
BAD
LLL

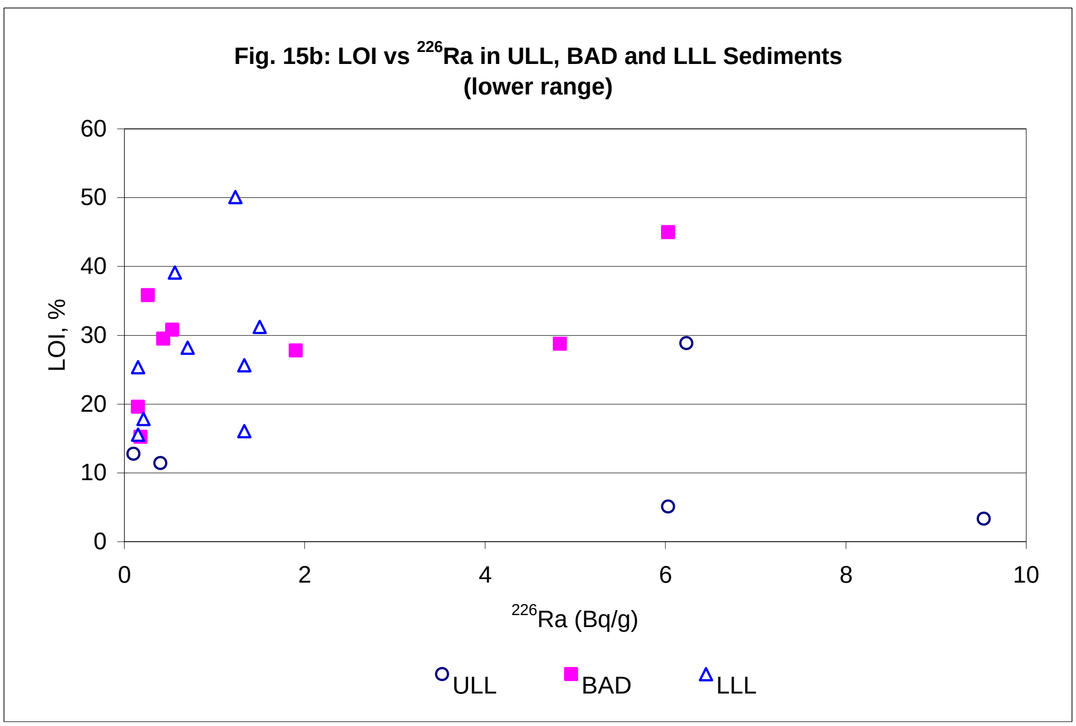


Fig. 15b: LOI vs 226Ra in ULL, BAD and LLL Sediments
(lower range)
LOI, %
226Ra (Bq/g)
60
50
40
30
20
10
0
0
2
4
6
8
10
ULL
BAD
LLL

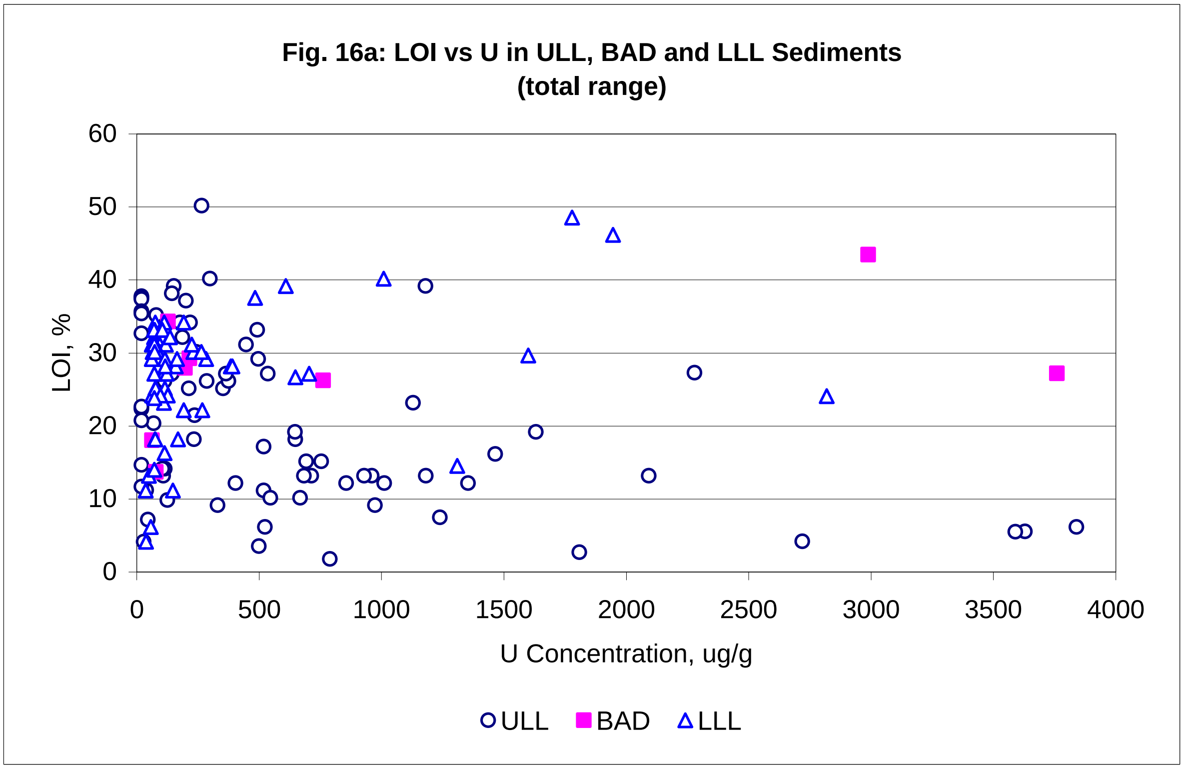


Fig. 16a: LOI vs U in ULL, BAD and LLL Sediments
(total range)
60
50
40
30
20
10
0
LOI, %
0
500
1000
1500
2000
2500
3000
3500
4000
U Concentration, ug/g
ULL
BAD
LLL

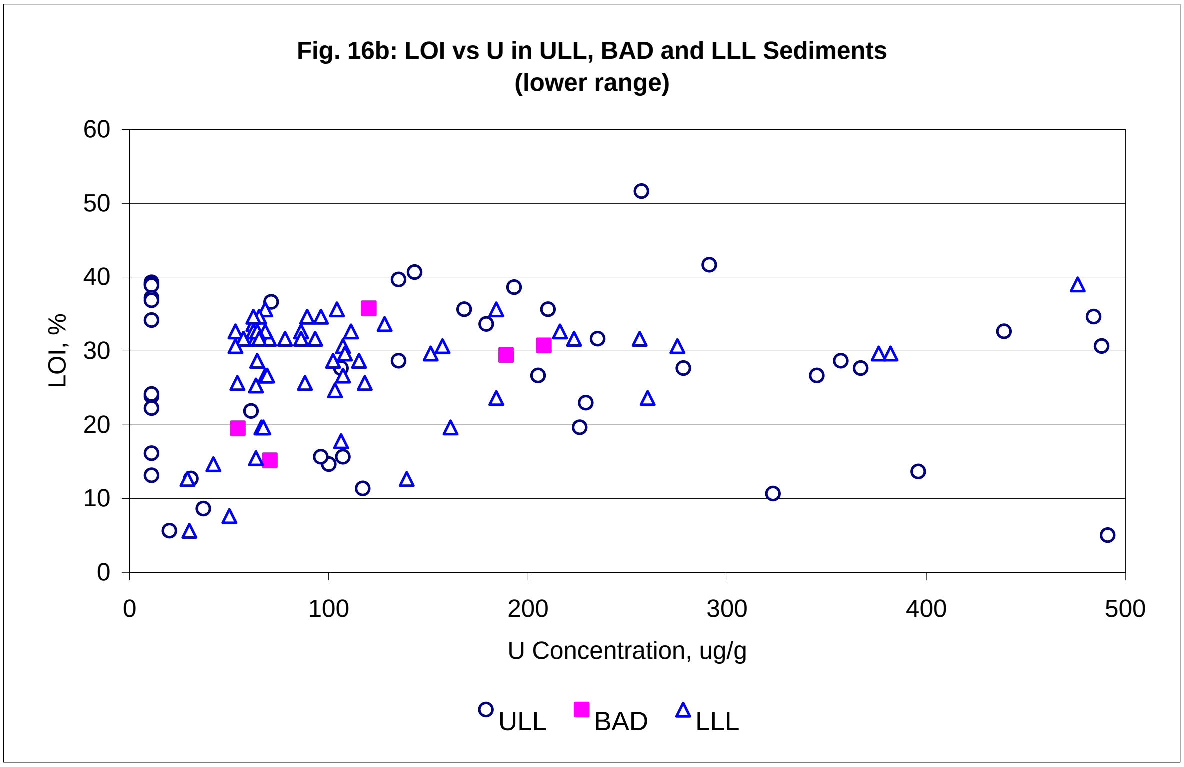
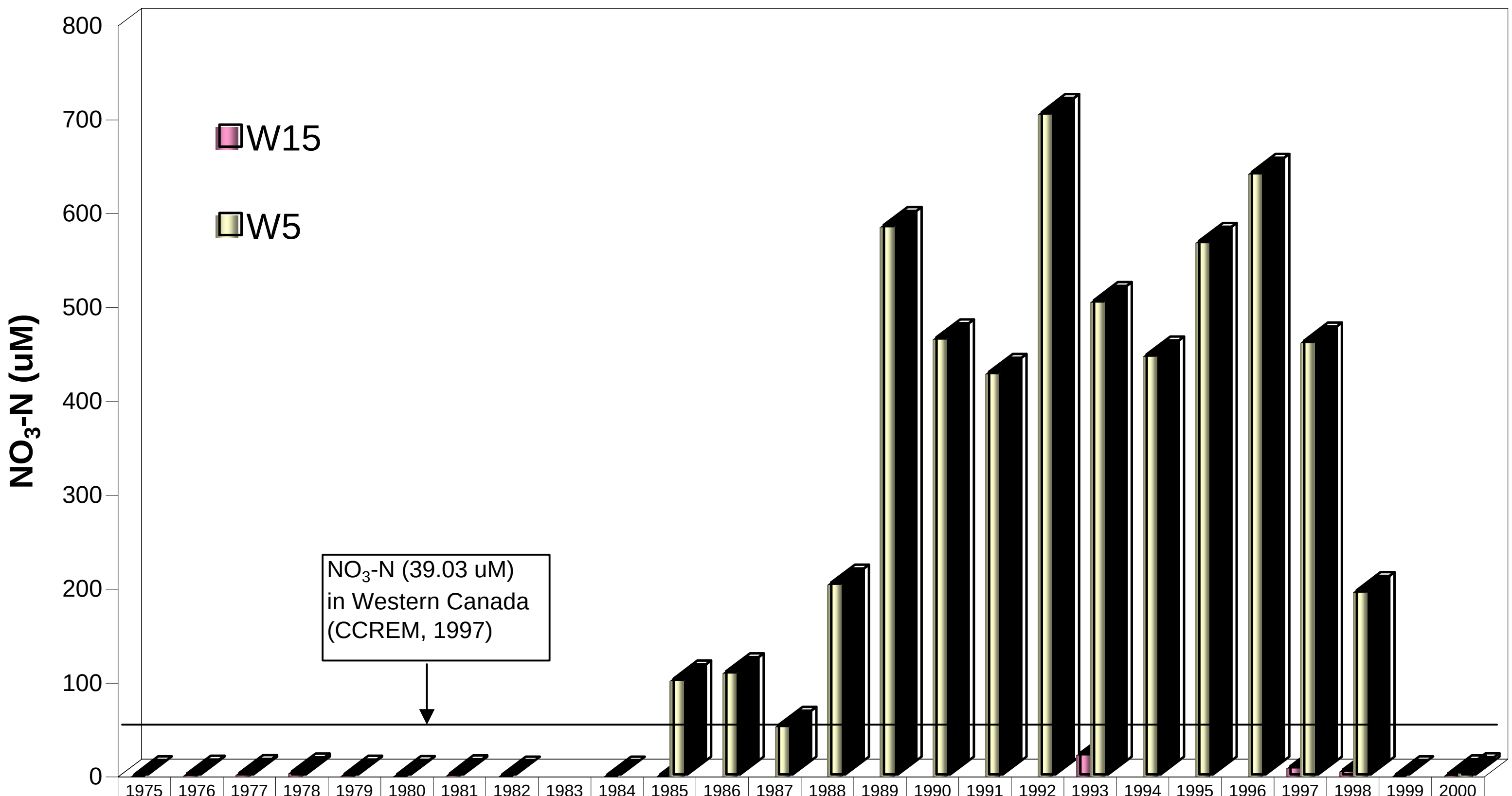


Fig. 16b: LOI vs U in ULL, BAD and LLL Sediments
(lower range)
60
50
40
30
20
10
0
LOI, %
0
100
200
300
400
500
U Concentration, ug/g
ULL
BAD
LLL

Fig. 17a: Historic Concentration of Nitrate (NO_3), W5 and W15

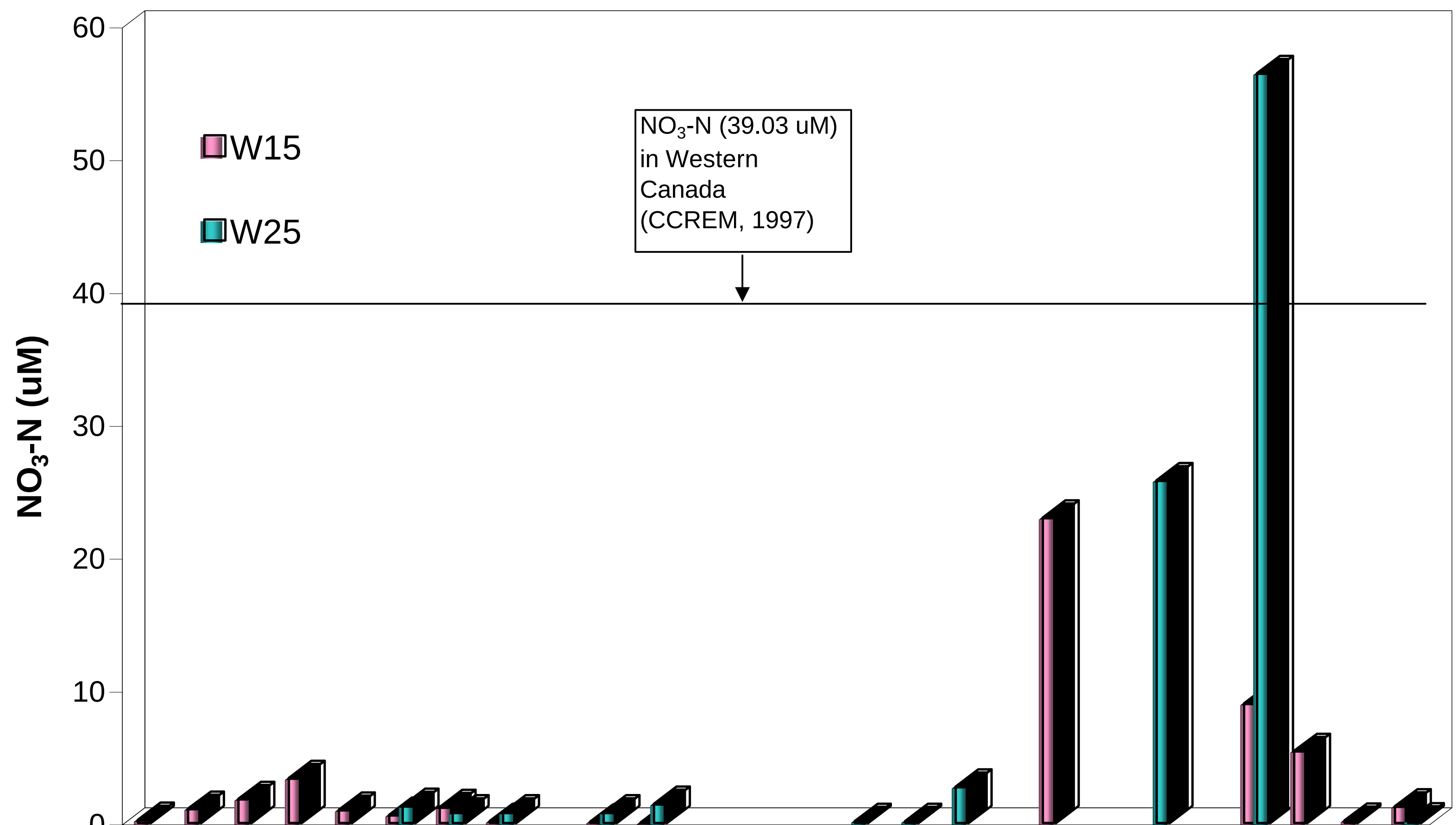


	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
W15	0.25	1.08	1.82	3.40	1.00	0.64	1.20	0.16		0.12	0.05								23.00				9.02	5.43	0.19	1.266
W5											102.4	110.2	53.19	204.6	585.4	465.8	429.0	705.6	505.3	447.5	568.5	641.9	462.3	196.4		3.79

Number of samples:

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
W15	13	12	6	3	4	2	2	2		1	1								1				2	5	5	7
W5											8	9	4	4	4	4	5	4	3	4	4	5	3	2		2

Fig. 17b: Historic Concentration of Nitrate (NO_3), W15 and W25

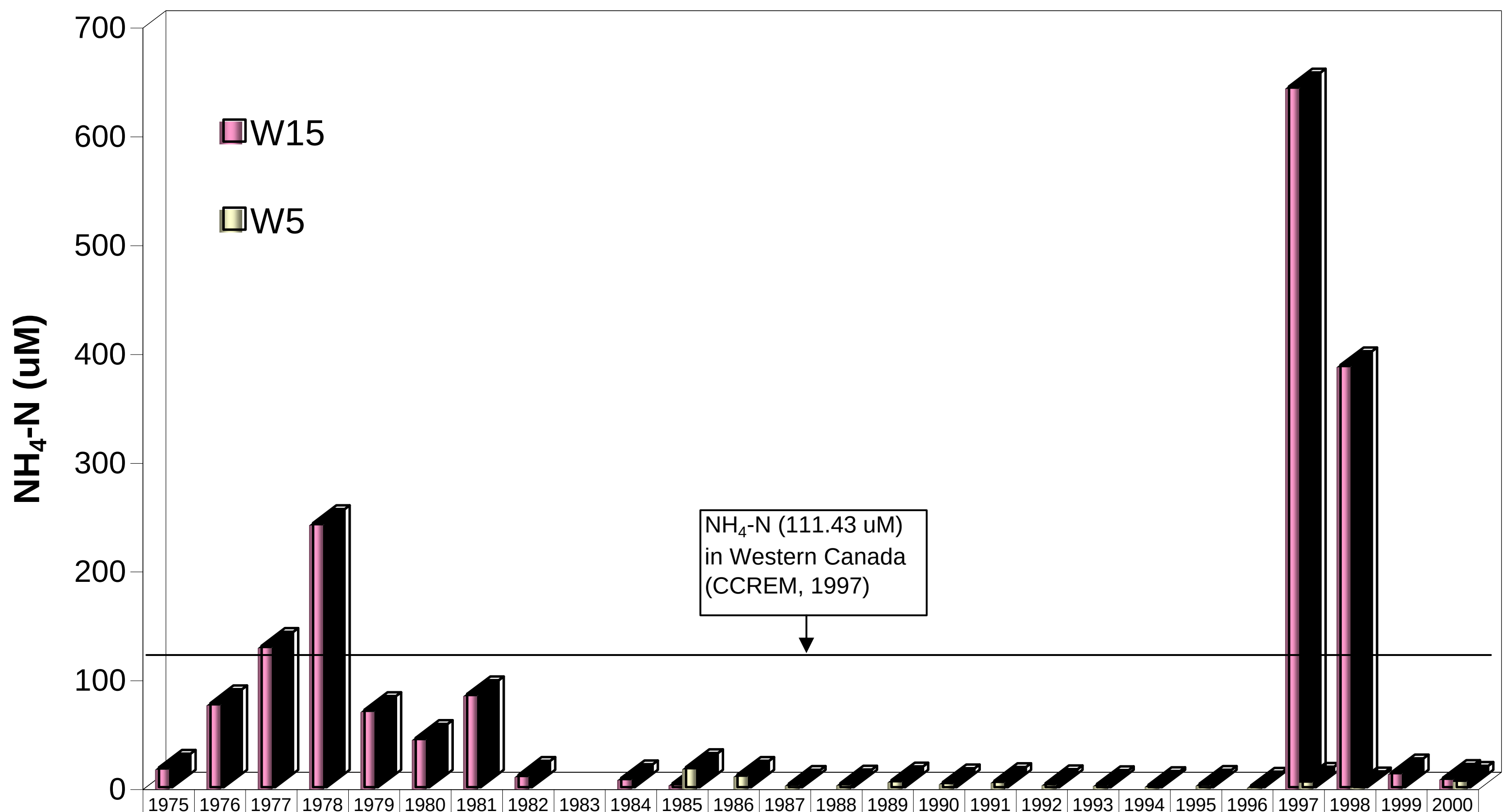


	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
W15	0.25	1.08	1.82	3.40	1.00	0.64	1.20	0.16		0.12	0.05								23.00				9.02	5.43	0.19	1.27
W25						1.29	0.81	0.81		0.81	1.45				0.16	0.16	2.74				25.81		56.45			0.20

Number of samples:

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
W15	13	12	6	3	4	2	2	2		1	1								1				2	5	5	7
W25						2	2	2		1	1				1	1	3				1		1			4

Fig. 18a: Historic Concentration of Ammonium (NH_4), W5 and W15

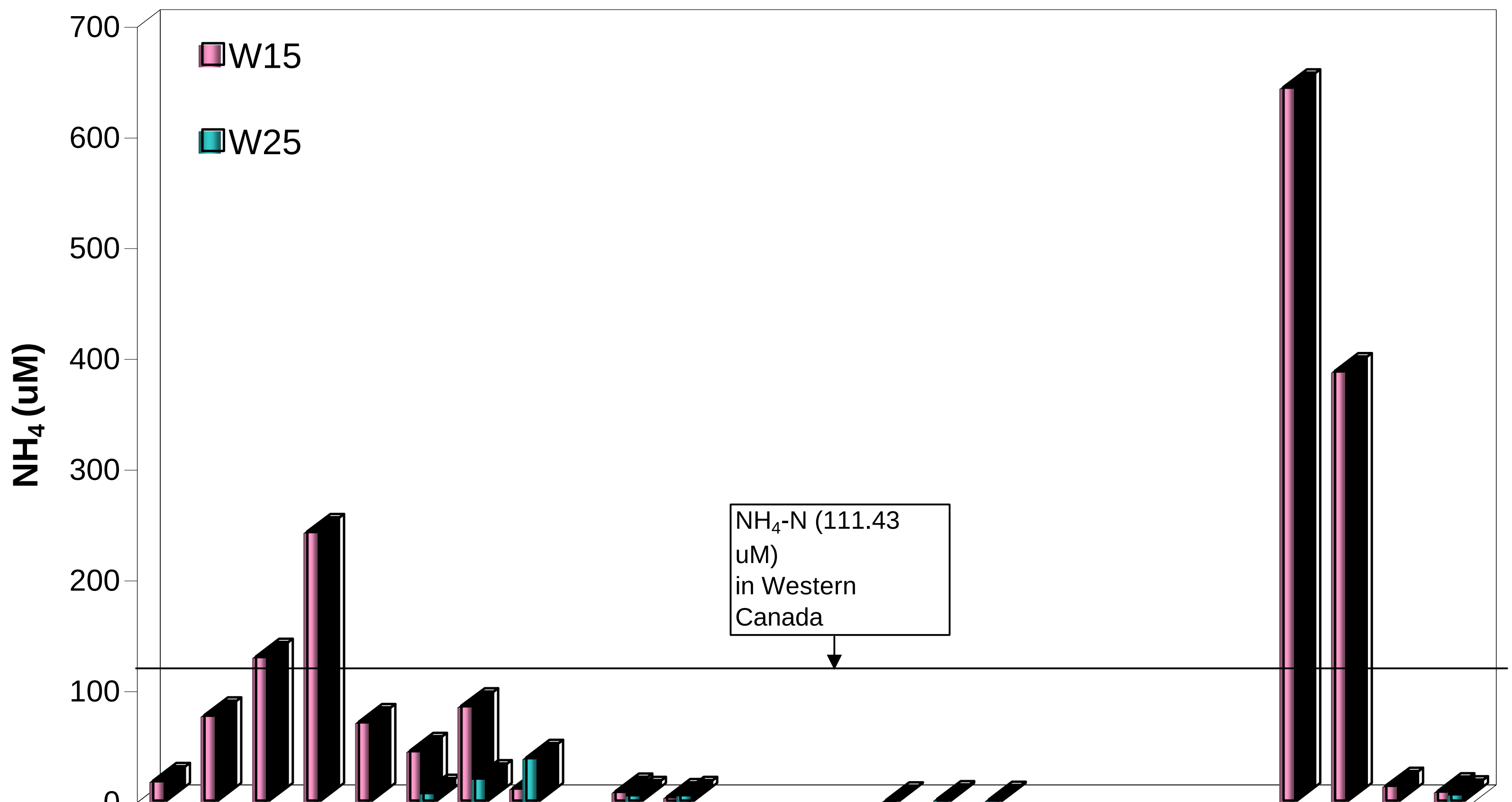


	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
W15	18.21	77.38	130.1	242.9	71.25	45.36	85.71	11.43		8.57	3.57												644.2	388.1	13.86	8.74
W5											18.59	11.71	3.33	3.61	6.53	4.72	6.00	3.78	3.06	2.22	3.33	1.67	6.30	1.79		7.06

Number of samples:

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
W15	13	12	6	3	4	2	2	2		1	1												2	5	5	7
W5											13	14	4	4	4	4	5	5	2	3	4	5	3	2		2

Fig. 18b: Historic Concentration of Ammonium (NH_4), W15 and W25

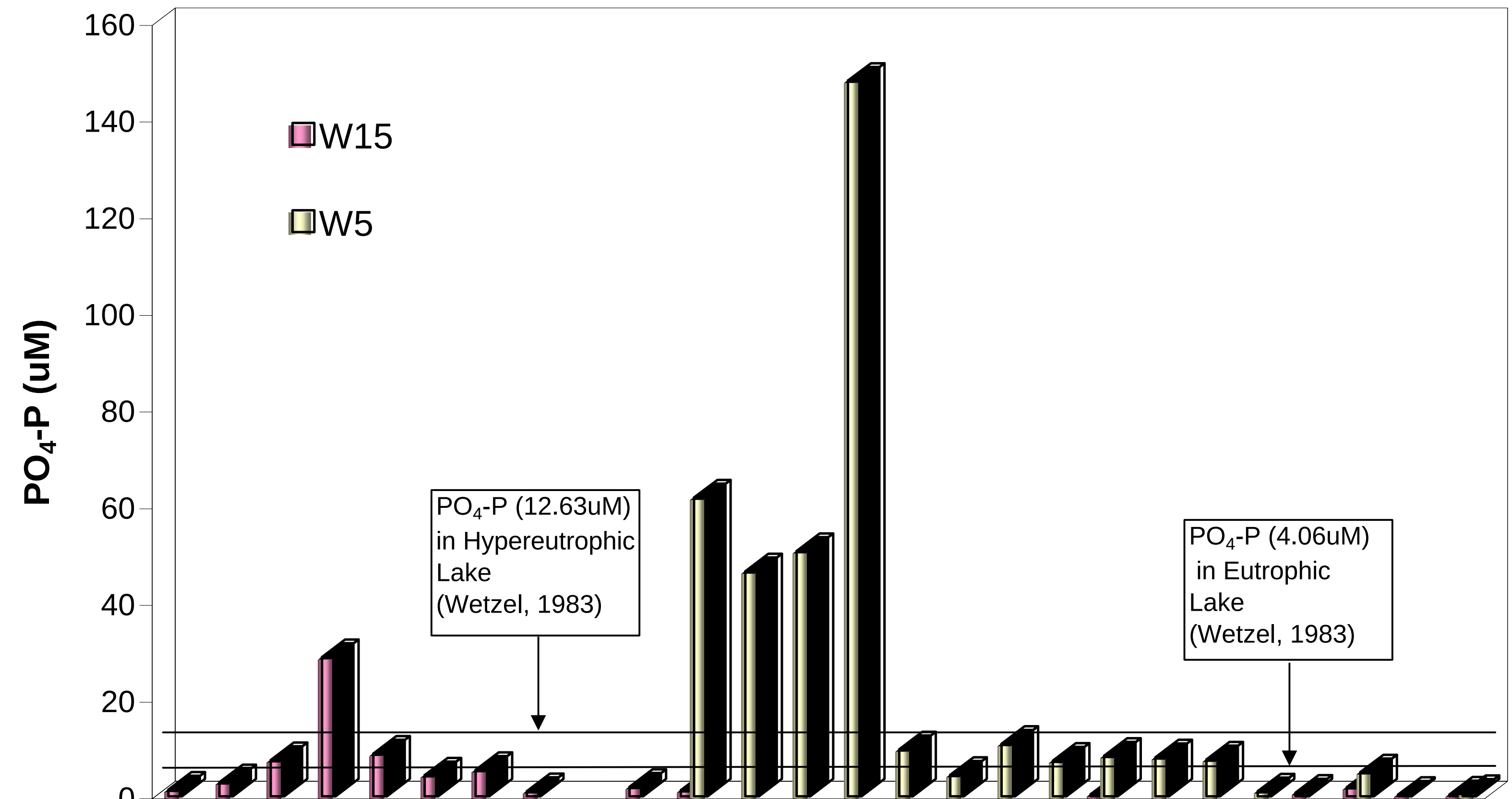


	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
W15	18.21	77.38	130.1	242.9	71.25	45.36	85.71	11.43		8.57	3.57												644.2	388.1	13.86	8.74
W25						7.50	20.56	38.89		5.56	5.56				0.56	1.67	1.11									6.18

Number of samples:

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
W15	13	12	6	3	4	2	2	2		1	1												2	5	5	7
W25						2	3	2		1	1				1	1	3									6

Fig. 19a: Historic Concentration of Phosphate (PO_4-P), W5 and W15

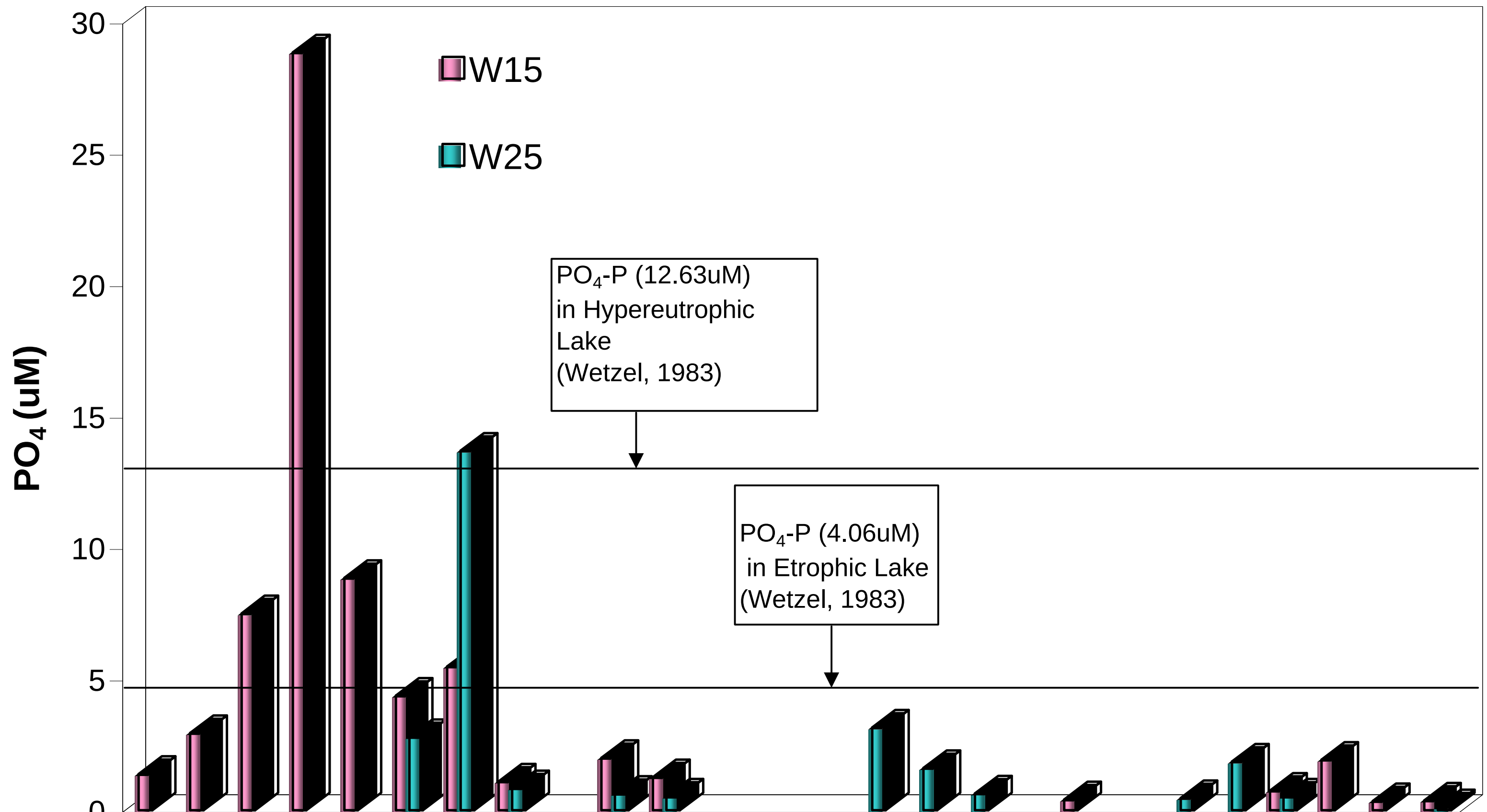


	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
W15	1.39	2.95	7.50	28.84	8.84	4.37	5.47	1.11		2.00	1.26								0.42				0.75	1.94	0.35	0.38
W5											61.84	46.58	50.79	148.0	9.74	4.47	10.88	7.37	8.42	8.07	7.63	1.05		5.00		0.74

Number of samples:

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
W15	5	6	1	1	2	2	2	2		1	1								1				2	5	6	7
W5											8	8	3	4	4	4	3	4	2	3	4	1		2		2

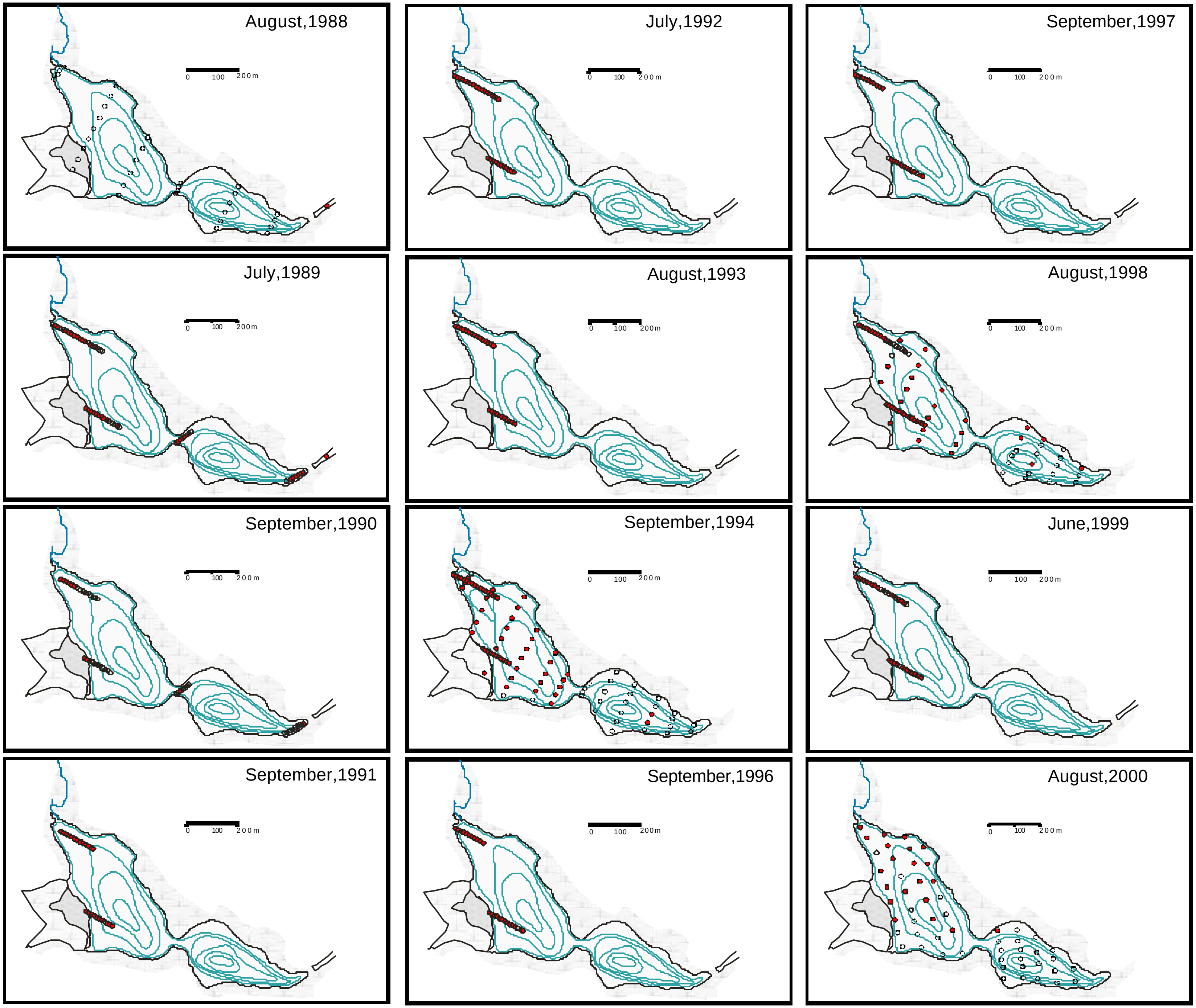
Fig. 19b: Historic Concentration of Phosphate (PO_4), W15 and W25



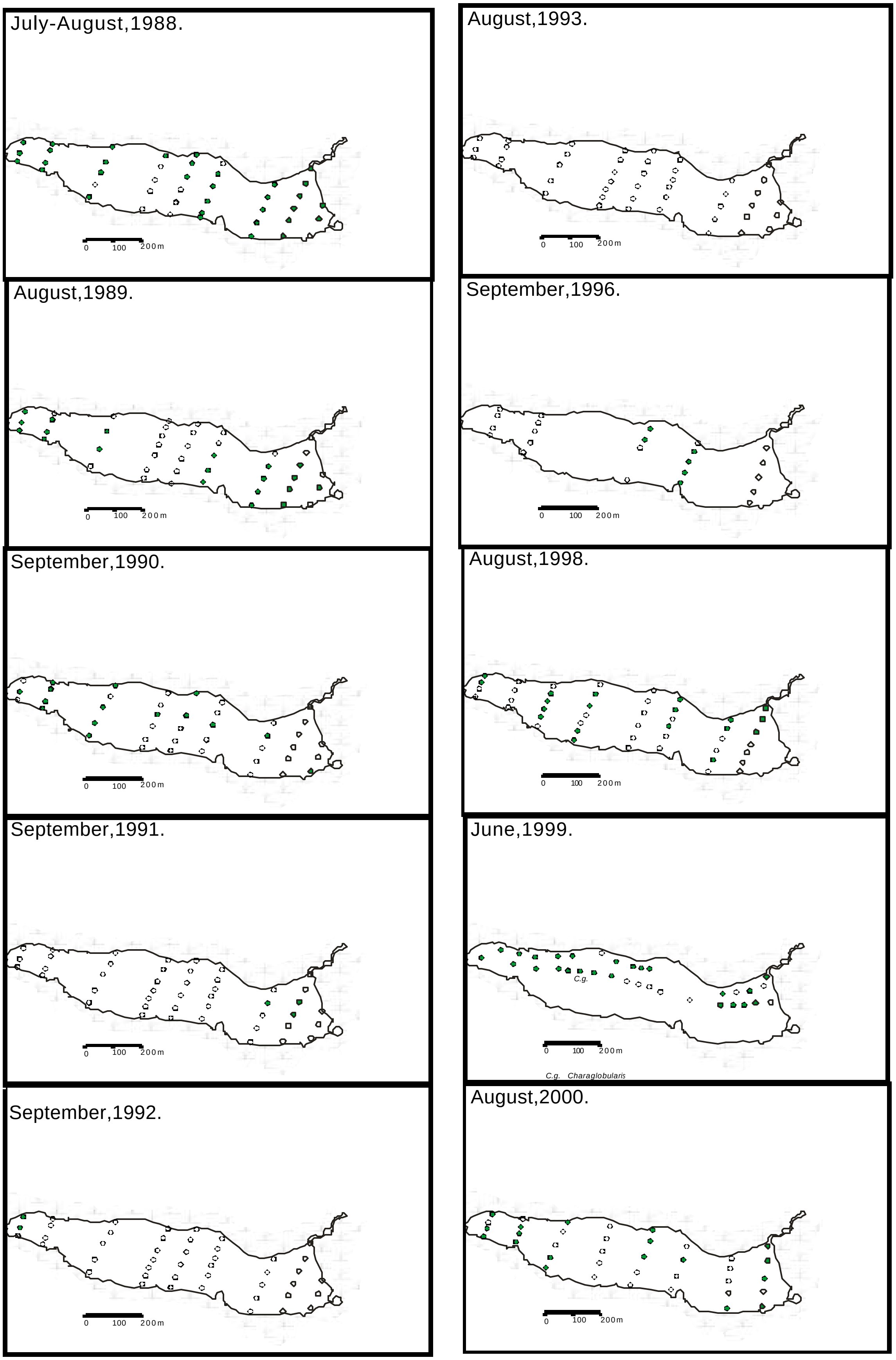
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
W15	1.39	2.95	7.50	28.84	8.84	4.37	5.47	1.11		2.00	1.26								0.42				0.75	1.94	0.35	0.38
W25						2.79	13.68	0.84		0.63	0.53				3.16	1.61	0.65				0.47	1.86	0.53			0.13

Number of samples:

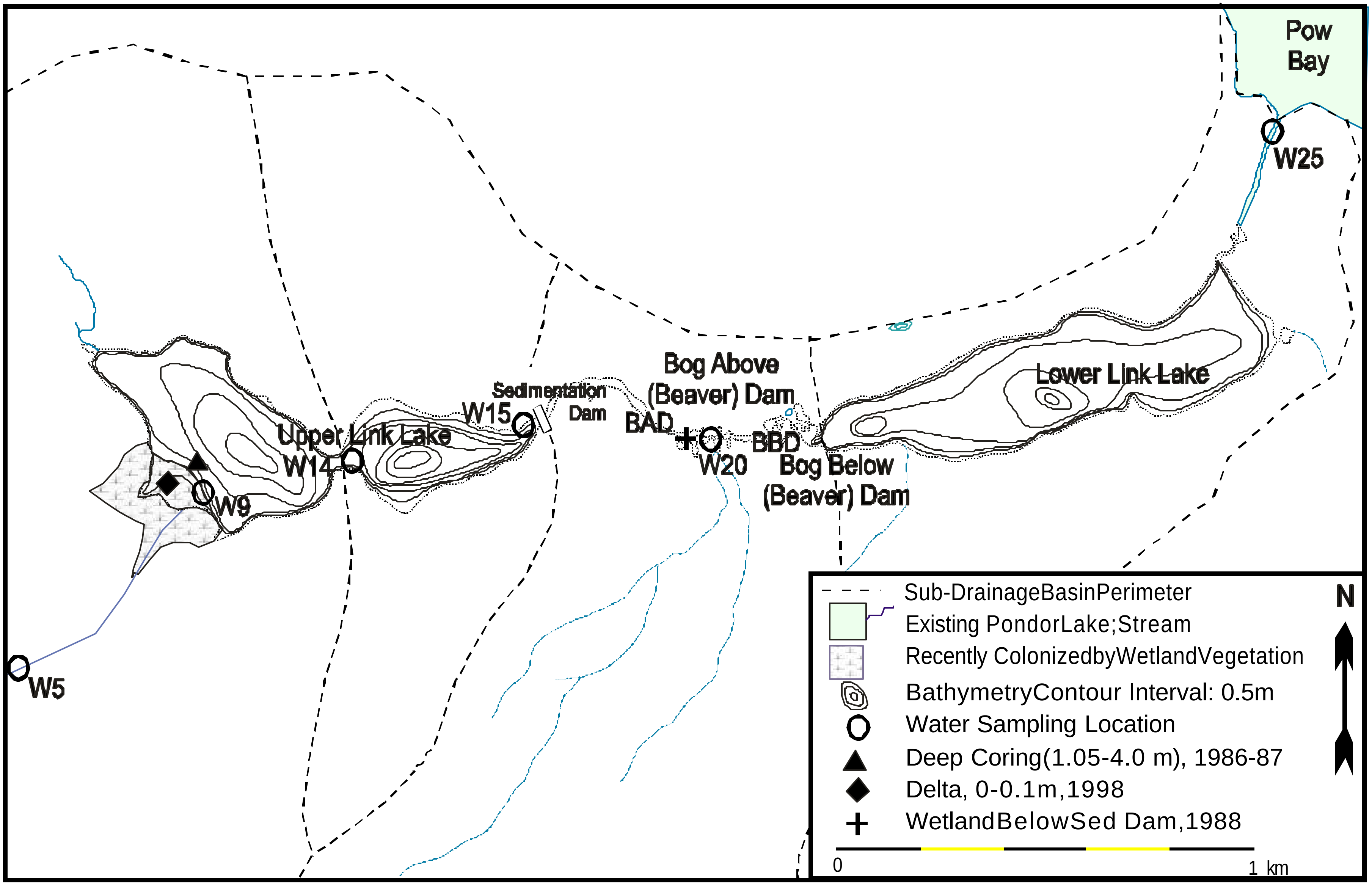
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
W15	5	6	1	1	2	2	2	2		1	1								1				2	5	6	7
W25						2	3	2		1	1				5	1	1				2	3	4			5



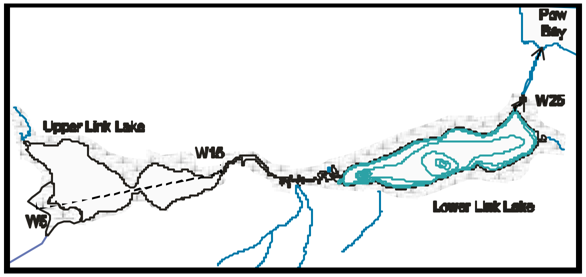
Schematic1: Distributionof *N.flexilis* inUpperLinkLake,1988-2000. Open circles denote sampling point withno biomass. Filled circles denote directlyobserved orpresentinatleast oneof threeEkman orrake grabsamples.

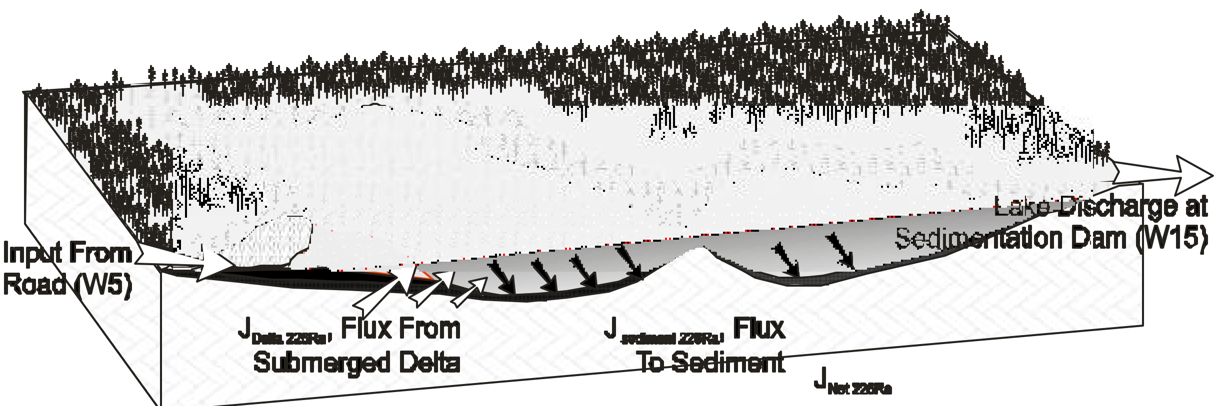


Schematic2: *Nitella flexilis* distribution inLowerLinkLake,1988-2000.Opencirclesdenotesampling pointwithnobiomass. Filledcirclesdenotepresenceinatleastoneofthree Ekmanorrakegrabsamples.



Schematic 3: Upper and Lower Link Lakes Bathymetry.

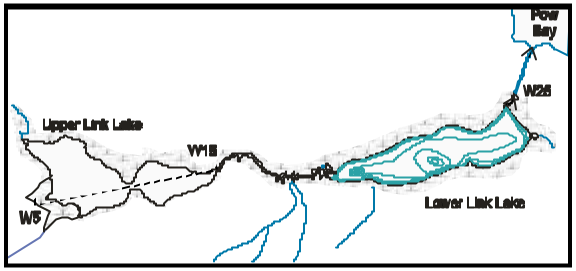


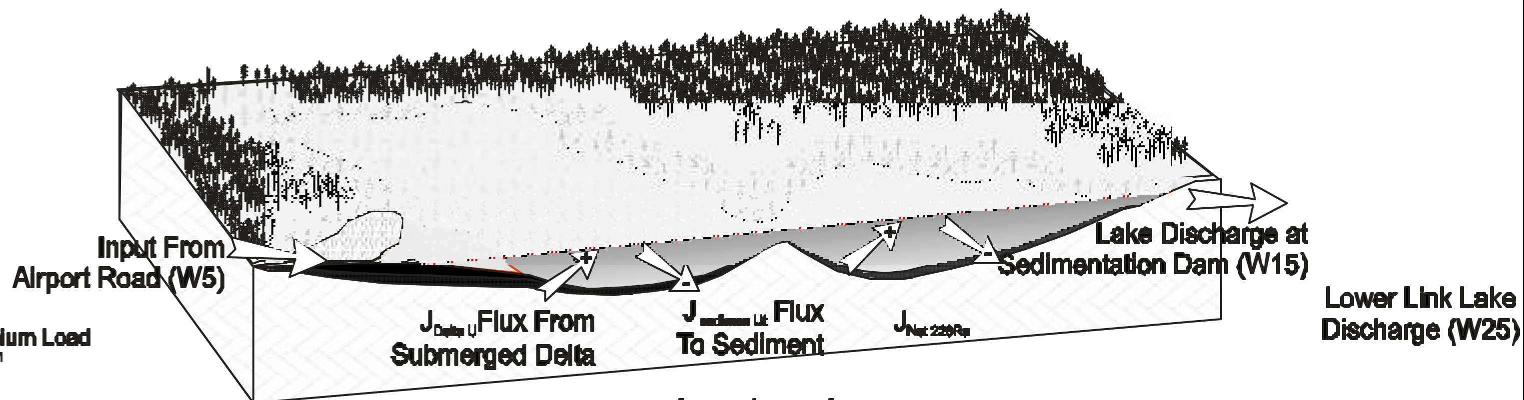


$$J_{Net\ 226Ra} = J_{Delta\ 226Ra} - J_{sediment\ 226Ra}$$

Average ^{226}Ra Load M-Bq.d^{-1}	Input From Airport Road (W5)	$J_{Net\ 226Ra}$	Lake Discharge at Sedimentation Dam (W15)	Lower Link Lake Discharge (W25)
1987 - 1992 Before *Nitella* Establishment	0.71	0.93	1.64	0.56
1993 - 1997 After Nitella Establishment	0.51	0.40	0.91	0.50
1998-2000 After North Ditch Diversion	0.031	0.35	0.38	0.22

Schematic 4: Upper and Lower Link Lake ^{226}Ra Loads, 1987 to 2000.





Average Uranium Load $kg.d^{-1}$		$J_{Net\ U} = J_{Delta\ U} - J_{sediment\ U}$		
1987 - 1992 Before *Nitella* Establishment	7.9	- 4.3	3.6	2.0
1993 - 1997 After Nitella Establishment	7.8	- 5.1	2.7	1.9
1998-2000 After North Ditch Diversion	0.03	1.1	1.1	0.74

Schematic 5: Upper and Lower Link Lake Uranium Loads, 1987 to 2000.

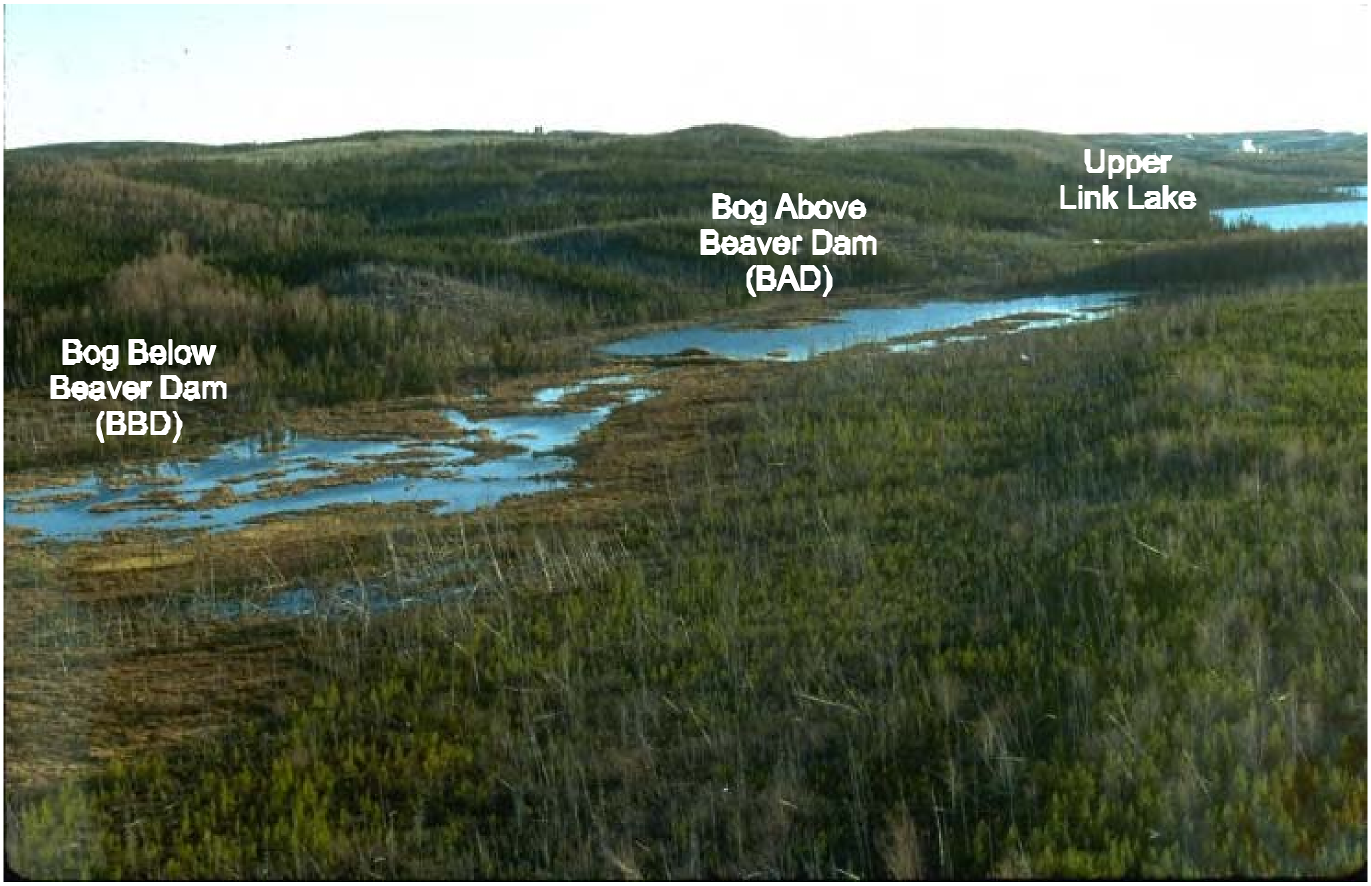


Plate1: Aerial view of minerotrophicbogbetweenUpperandLower LinkLakes,June,1989.

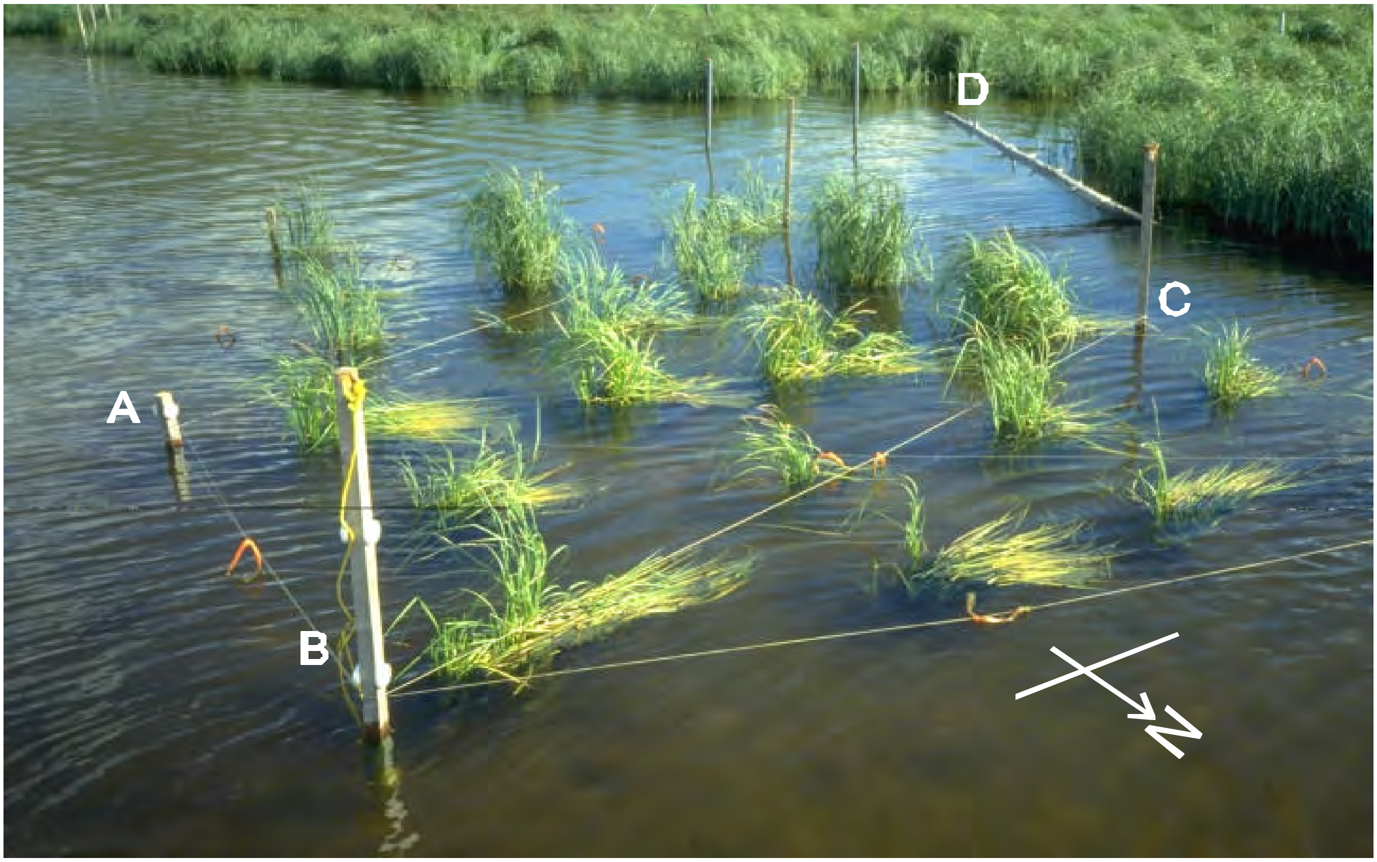


Plate2a: Transplanted *Scirpus atrocinctus* plotatset-up, July,1989.

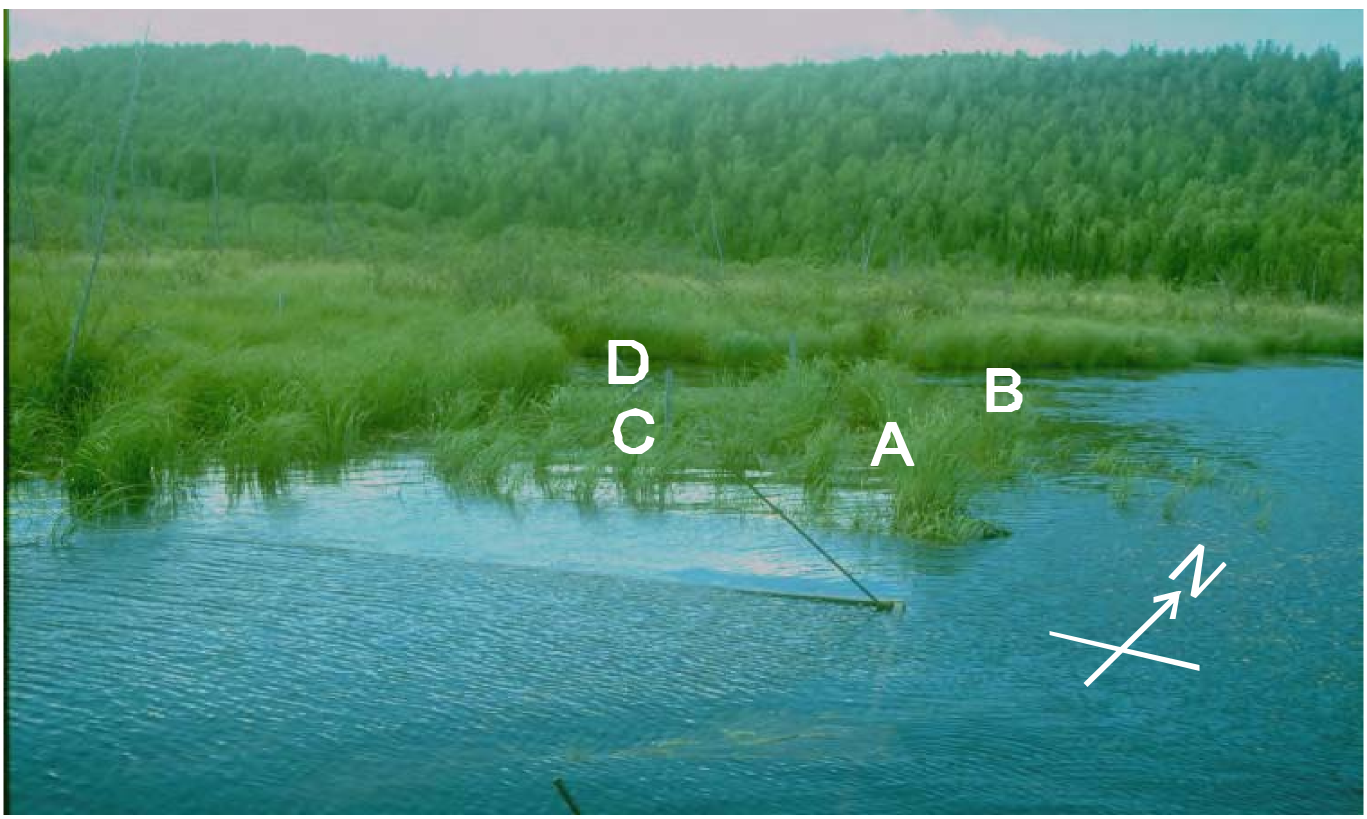


Plate 2b: *Scirpus atrocinctus* plot eleven years following set-up,June,1999.

Plate3: Periphytic algal growth inBADheadwaters(terrestrialization in progress),August, 1998.

Plate4: View of underwatermeadowinpond(Stn1.1=W2)atbaseofwestwaste rockpile,1990.

Plate 5: Harvested *Nitella flexilis* from Lower Link lake ready for transplant to Upper Link Lake, June, 1989.

Appendix 1

Raw Data

LIST OF TABLES

LIST OF FIGURES

Table 1: Internal and External Reports on Rabbit Lake Drainge Basin Systems

CODE	PROJ	YEAR	DATE	TITLE	DESCRIP
CA085	MISC.	1984	07.01	An examination of water quality in the Rabbit Lake Drainage Basin: Part i - Review of historical data base	Final
CA086	MISC.	1987	05.01	The use of the chara process in effluent polishing: growth characteristics	Summary
CA004	Rabbit Lake	1988	11.01	Ecological engineering at Rabbit Lake - phase I. (office copy dated Dec. 1988)	Final Report
CA019	Link Lake	1988	01.16	Design (draft) report for the implementation of the chara process in Upper Link Lake	Draft
CA020	Link Lake	1988	11.16	Ecological engineering and the implimentation of the chara process in Upper Link Lake	Draft
CA005	Rabbit Lake	1989	11.01	Ecological engineering and the chara process applied to the Rabbit Lake Drainage Basin: phase 2 - implimentation of the chara process - A: construction report	REPORT
CA021	Link Lake	1989	01.01	Ecological engineering and the chara process applied to the Rabbit Lake Drainage Basin - phase 1: design parameters for implementation in the Link Lake system	Final
CA022	Link Lake	1989	0	Phytoplankton and periplankton in the Link Lake sysetem	Draft
CA023	Link Lake	1989	03.16	Design report for the implementation of the chara process in Upper Link Lake	Report
CA088	MISC.	1989	02.02	CAMECO Background info.	Background
CA089	MISC.	1989	04.21	CAMECO (Rabbit Lake), Proposals and buget	Proposal
CA006	Rabbit Lake	1990	09.04	Decommissioning of the Rabbit Lake Drainage Basin with ecological engineering	Draft
CA024	Link Lake	1990	11.30	The transplanting of nitella to Upper Link Lake, performance report	Progress
CA090	MISC.	1990	0	Background for reports	Background
CA091	MISC.	1990	0	Progress reports (different dates)	Progress
CA007	Rabbit Lake	1991	03.14	Towards decommissioning of the Rabbit Lake Drainage Basin using ecological engineering, 1991 proposal of work	Proposal
CA008	Rabbit Lake	1991	11.14	Ecological engineering and the chara process - applied to the Rabbit Lake Drainage Basin	Draft Report
CA009	Rabbit Lake	1992	02.21	Ecological engineering and the chara process applied to the Rabbit Lake Drainage Basin - Final Reportfor CAMECO	Final Report
CA025	Link Lake	1992	0	Surface water 1980 -1992, Graphs	Data
CA026	Link Lake	1992	09.10	Link Lake Drainage Basin progress report, on-site examination: July 24-28, 1992	Progress
CA093	MISC.	1992	03.31	Germination of nitella flexilis oospored: identification of specific conditions`	Progress

Table 2a: Daily and Annual ^{226}Ra Loads in Upper Link Lake, 1987 to 2000

Description	Summary of Loads by Period	Airport Road W5		Sedimentation Dam W15		Lower Link Lake Outflow W25		Difference			
		Daily	Annual	Daily	Annual	Daily	Annual	W15 - W5		W25-W15	
		M-Bq.d-1	M-Bq.y-1	M-Bq.d-1	M-Bq.y-1	M-Bq.d-1	M-Bq.y-1	M-Bq.d-1	M-Bq.y-1	M-Bq.d-1	M-Bq.y-1
Before *Nitella* Establishment	1987	0.36	131	1.31	478	0.31	114	0.95	347	-1.00	-363
	1988	1.34	490	1.84	672	0.57	207	0.50	182	-1.27	-465
	1989	0.74	271	1.74	634	0.61	223	0.99	363	-1.13	-411
	1990	0.49	179	1.59	581	0.52	188	1.10	402	-1.08	-393
	1991	0.65	236	1.79	655	0.72	263	1.15	418	-1.07	-391
	1992	0.70	257	1.58	576	0.62	226	0.87	319	-0.96	-350
After *Nitella* Establishment	1993	0.54	196	0.95	346	0.60	218	0.41	150	-0.35	-128
	1994	0.53	193	0.80	292	0.72	262	0.27	100	-0.08	-30
	1995	0.34	123	1.15	418	0.45	163	0.81	295	-0.70	-255
	1996	0.30	109	0.66	242	0.35	126	0.36	132	-0.32	-115
	01/01/97 - 27/11/97	0.89		1.00		0.39		0.11		-0.61	
Overall Average (a)		0.62	227	1.31	479	0.53	194	0.69	252	-0.78	-285
After North Ditch Diversion	28/11/97 - 31/12/97	0.069		0.87		0.38		0.80		-0.49	
	1998	0.021	7.6	0.479	175	0.264	96	0.46	167	-0.21	-78
	1999	0.011	4.0	0.307	112	0.166	61	0.30	108	-0.14	-51
	1/1/00- 30/11/00	0.076		0.292		0.208		0.22		-0.08	
Overall Average (b)		0.031	11	0.378	138	0.219	80	0.35	127	-0.16	-58
Reduction Factor Following N.Ditch Diversion*****		20		3.5		2.4					

***** Reduction Factor Following N.Ditch Diversion = Overall Average (a) / Overall Average (b)

Table 1: Internal and External Reports on Rabbit Lake Drainge Basin Systems (continuation)

CODE	PROJ.	YEAR	DATE	TITLE	DESCRIP.
CA094	MISC.	1992	04.30	Determination of conditions for oospore gernination	Progress
CA095	MISC.	1992	06.29	Site visit: June 15-22, 1992	Progress
CA010	Rabbit Lake	1993	0	Ecological engineering of the Rabbit Lake Drainage Basin - 1988 to 1993 evaluation report	Final Report
CA011	Rabbit Lake	1993	10.01	Ecological engineering of the Rabbit Lake Drainage Basin - 1993 final report	Draft
CA026A	Link Lake	1993	01.01	Water surface data	Data
CA012	Rabbit Lake	1995	02.03	Ecological engineering of the Rabbit Lake Drainage Basin - 1994 technical update report	Progress
CA012	Link Lake	1995	02.03	Ecological engineering of the Rabbit Lake Drainage Basin - 1994 technical update report	Progress
CA013	Rabbit Lake	1995	02.03	Reply document to comment from the joint regularory group (JRG) regarding ecological engineering of the Rabbit Lake Drainage Basin - 1988 to 1993 enaluation rreport- Tech. Response	Technical Reponse
CA013	Link Lake	1995	02.03	Reply document to comments from the joint regulatory group (JRG) regarding ecological engineering of the Rabbit Lake Drainage Basin, 1988 to 1993 evaluation report	Technical Reponse
CA027	Link Lake	1995	07.03	The nitrogen cycle - a literature review in relation to nitella growth in the Link Lake system	Progress
CA028	Link Lake/ B-ZONE	1995	07.05	Upper and Lower Link Lakes area - summary of June 20 to 28, 1995 site visit	Progress
CA029	Link Lake/B-ZONE/A-ZONE	1995	08.15	Rabbit Lake operation progress report, site visit: August 8-15, 1995	Progress
CA030	Link Lake	1995	10.04	Rabbit Lake operation site visit September 15-19, 1995 - Link Lake Drainage Basin progress report	Progress
CA031	Link Lake	1995	10.01	A biogeochemical model of Link Lake	Proposal
CA014	Rabbit Lake	1996	0	^{226}Radium retention in Rabbit Lake Drainage Basin, summary of 1987 - 1995 data	Summary
CA015	Rabbit Lake	1996	03.08	Ecological engineering of the Rabbit Lake Drainage Basin - draft 1995 annual report	Draft
CA016	Rabbit Lake	1996	09.09	CAMECO Rabbit Lake site visit, between August 29 and September 4, 1996 - Rabbit Lake Drainage Basin	Progress
CA032	Link Lake	1996	09.10	Link Lakes Drainage Basin site visit, August 30-September 03, 1996.	Progress
CA017	Rabbit Lake	1998	11.18	Rabbit Lake Drainage Basin site visit report, August 28 - September 2, 1998	Progress
CA018	Rabbit Lake	1999	07.23	Decommissioning plan for the Rabbit Lake Drainage Basin: ecosystem restoration concept	Progress

Table 2b: Daily and Annual Uranium Loads in Upper Link Lake, 1987 to 2000

Description	Summary of Loads by Period	Airport Road W5		Sedimentation Dam W15		Lower Link Lake Outflow W25		Difference			
		Daily	Annual	Daily	Annual	Daily	Annual	W15 - W5		W25-W15	
		$kg.d^{-1}$	$kg.y^{-1}$	$kg.d^{-1}$	$kg.y^{-1}$	$kg.d^{-1}$	$kg.y^{-1}$	$kg.d^{-1}$	$kg.y^{-1}$	$kg.d^{-1}$	$kg.y^{-1}$
Before *Nitella* Establishment	1987	4.0	1469	2.69	984	1.15	421	-1.33	-486	-1.54	-562
	1988	13	4655	2.90	1060	1.58	578	-9.85	-3594	-1.32	-482
	1989	7.7	2816	4.15	1514	1.85	674	-3.57	-1302	-2.30	-840
	1990	5.9	2144	3.96	1446	2.31	842	-1.91	-698	-1.66	-605
	1991	7.9	2875	3.73	1361	2.75	1003	-4.15	-1514	-0.98	-358
	1992	9.3	3404	4.45	1624	2.07	756	-4.88	-1780	-2.38	-868
After *Nitella* Establishment	1993	6.7	2434	3.71	1353	3.42	1248	-2.96	-1081	-0.29	-104
	1994	5.6	2041	2.14	780	2.12	774	-3.45	-1261	-0.02	-6
	1995	5.7	2077	2.23	814	1.22	444	-3.46	-1263	-1.01	-370
	1996	8.8	3217	2.14	781	1.06	389	-6.67	-2436	-1.07	-392
	01/01/97 - 27/11/97	13		3.13		1.77		-9.57		-1.36	
Overall Average (a)		7.9	2874	3.20	1169	1.94	707	-4.67	-1704	-1.27	-462
After North Ditch Diversion	28/11/97 - 31/12/97	0.75		5.35		1.42		4.60		-3.93	
	1998	0.013	4.7	2.17	791	1.09	397	2.15	786	-1.08	-394
	1999	0.002	0.7	0.58	212	0.73	267	0.58		0.15	
	1/1/00-30/11/00	0.008		0.19		0.31		0.19		0.11	
Overall Average (b)		0.03		1.10		0.74					
Reduction Factor Following N.Ditch Diversion*		258		2.9		2.6					

***** Reduction Factor Following N.Ditch Diversion = Overall Average (a) -Overall Average (b).

Table 3: Characteristics of Slurries from Rabbit Lake Sediments, 1998

Area	Location	Depth (m)	Texture	Slurry (60ml solid : 120 ml DH2O)						L.O.I. (%)
				pH		Em (mv)		Conductivity (uS/cm)		
				9/11/98	6/23/99	9/11/98	6/23/99	9/11/98	6/23/99	
BAD	W 20	0-0.1 (Eckmann)	fine peat	6.67	4.73	106	320	186	520	27.04
LLL	W 23	0-0.1 (Eckmann)	peat	6.64	5.13	78	357	105	408	14.37
LLL	W 23.1	0-0.1 (Eckmann)	very fine peat	6.40	4.65	116	382	149	520	37.39
LLL	W 24	0-0.1 (Eckmann)	fine peat	6.44	5.04	108	388	180	600	48.4
LLL	W 25	0-0.1 (Eckmann)	mostly peat	6.40	5.07	71	364	123	510	23.93
ULLAN	Shallow Delta A	0-0.2 (hand core)	fine sand	6.58	6.87	88	409	166	590	1.62
ULLAN	Shallow Delta B	0-0.2 (hand core)	silt	6.72	7.00	112	402	180	620	3.38
ULLAN	Shallow Dalta C	0-0.2 (hand core)	silt	6.75	7.61	100	355	196	510	2.56
ULLAN	Deep Delta A	0-0.1 (Eckmann)	clay	6.45	7.22	-67	378	181	630	5.41
ULLAN	Deep Delta B	0-0.1 (Eckmann)	clay	6.22	4.82	-52	392	273	990	5.36
ULLAN	Deep Delta C	0-0.1 (Eckmann)	clay	6.42	7.05	-28	375	208	745	4.02
ULLAN	Sediment Delta D	0-0.1 (Eckmann)	clay	6.55	6.79	99	391	219	680	7.31
ULLAN	ULL AN	0-0.1 (Eckmann)	clay	6.40	5.60	-23	400	189	640	6.01
ULLAN	ULL BN	0-0.1 (Eckmann)	very fine peat	6.32	4.71	97	430	205	700	27.13

Table 4: Characteristics of Sediment from Rabbit Lake, 1998

Element ug/g	BAD	Lower Link Lake				Upper Link Lake Above Narrow								
	W20	W23	W23.1	W24	W25	Shallow Delta A	Shallow Delta B	Shallow Delta C	Deep Delta A	Deep Delta B	Deep Delta C	Deep Delta D	ULL AN	ULL BN
	8/29/98	8/30/98	8/31/98	9/1/98	9/2/98	8/30/98	9/1/98	9/1/98	8/30/98	8/30/98	8/30/98	9/1/98	9/1/98	9/1/98
Ag	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
Al	19600	14900	14900	18900	11200	40500	28500	58600	78800	71700	69500	44100	89800	36700
As	14	5	5.2	11	8.4	14	8.1	15	31	25	23	15	30	16
B	25	14	11	20	10	76	45	92	130	110	130	70	120	51
Ba	71	44	56	70	65	25	26	36	55	57	65	50	86	75
Be	1.7	1	1	1.3	1.2	5	2.9	6.7	9.5	8.2	7.4	3.8	8.8	2.4
Ca	6200	3700	6100	8800	9400	6500	3300	7100	2900	2800	3000	3500	2700	5300
Cd	1.2	0.7	0.8	1.2	1	1.3	1.1	1.8	2.4	2.4	2.4	1.7	2.7	1.7
Co	10	5.7	6	7.1	6.2	21	11	31	42	39	32	17	34	11
Cr	14	8.6	10	15	12	18	18	19	27	25	25	14	28	13
Cu	41	12	19	24	27	280	84	370	530	400	240	130	270	36
Fe	13100	8800	10400	14100	9900	16500	16100	22300	28000	28700	2900	22500	33200	20800
K	3000	2500	2300	3100	1600	1400	1700	1600	2300	2300	3200	4100	3500	5400
Mg	6700	3700	2900	4000	3200	56600	32800	81000	90500	82400	78500	39300	96900	13600
Mn	180	160	100	150	160	170	130	220	260	240	230	180	250	160
Mo	76	16	13	33	33	20	9	26	39	48	34	16	40	36
Na	350	290	470	650	420	230	190	270	370	390	400	380	410	360
Ni	25	13	17	23	17	99	53	140	190	160	150	73	180	37
P	1300	680	690	1100	970	950	620	680	720	700	730	660	810	1000
Pb	19	6	7	13	14	250	82	220	540	400	220	100	280	35
S	9900	2200	4000	7100	7400	970	1300	1200	1900	2600	1400	2300	1600	5100
Sr	45	31	32	49	50	23	29	36	50	74	85	56	82	64
Ti	420	410	410	480	300	210	250	340	310	410	470	570	390	440
V	25	14	18	22	15	120	62	150	220	210	170	90	200	49
Zn	140	57	90	72	89	64	36	47	100	100	98	96	110	87
Zr	6	3.7	4.2	3.8	3.3	9.4	9.2	16	47	14	12	12	14	4.3
Ra^{226} Bq/g	4.8	1.3	0.53	1.2	1.3	9.5	6	22	54	37	28	12	33	6.2
U ug/g	3750	1300	475	1770	2810	780	490	1800	3620	3580	2710	1230	3830	2270

Table 5: Characteristics of Slurries from Rabbit Lake Sediments, 1986 - 87

Location	Depth (mm)	Assay#	pH	Em (mv)	Conductivity (us/cm)	Acidity (CaCO3, mg/l)	Alkalinity (CaCO3, mg/l)	L.O.I. (%)
ULL-86-29 #225	1050-1150	378	4.16	236	120	29.9	0.0	20.22
ULL-86-29 #228	1400-1500	379	5.17	188	109	7.3	4.4	14.5
ULL-86-29 #229	1550-1950	380	5.37	210	110	4.5	4.0	11.51
ULL-86-33 #145	1950-2350	377	5.30	216	373	5.8	8.4	35.22
ULL-86-35 #156	1700-2050	375	4.69	164	375	4.8	4.7	37.22
ULL-86-40 #162	3200-3600	372	5.22	223	493	7.4	3.7	37.61
ULL-86-40 #163	3600-4000	373	5.27	222	400	9.6	2.2	32.53
ULL-86-41 #194	2750-3150	374	5.27	206	362	6.1	4.3	37.43
LLL-87-4 #300	1700-2100	381	5.41	212	346	7.8	4.5	22.19
LLL-87-4 #316	1700-2100	382	4.75	195	115	6.6	4.4	22.49
LLL-87-8 #319	1700-2100	383	5.30	220	443	5.3	3.8	20.58

Note: The solid to water ratio for the slurry is : 60ml of wet solid to 120ml of distiled water

Table 6: Characteristics of Sediments from Rabbit Lake in 1986 - 87

Location	Upper Link Lake								Lower Link Lake		
	86-40 #162	86-40 #163	86-41 #194	86-35 #156	86-33 #145	86-29 #225	86-29 228	86-29 #229	87-4 #300	87-4 #316	87-8 #319
Depth (m)	3.2-3.6	3.6-4	2.75-3.15	1.7-2.05	1.95-2.35	1.05-1.15	1.4-1.5	1.55-1.95	1.7-2.1	1.7-2.1	1.7-2.1
Assay#	372	373	374	375	377	378	379	380	381	382	383
ug/g Ag	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Al	23287	21699	21170	24875	23816	41811	31755	36518	32814	32284	38106
As	<10	<10	<10	<10	<10	<10	30	40	30	<10	<10
B	600	500	500	500	700	1000	900	1000	900	900	1000
Ba	100	100	100	300	100	200	200	300	300	300	400
Be	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bi	<10	<10	<10	<10	<10	<10	10	20	<10	10	<10
Ca	5718	5003	5718	6432	5003	7862	7147	7147	8576	7862	10006
Cd	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Co	<10	<10	<10	<10	<10	<10	<10	<10	<10	30	10
Cr	30	30	30	30	30	40	20	20	30	30	30
Cu	40	20	10	10	10	60	10	20	30	20	20
Fe	11191	11191	9093	6295	7694	18885	6295	6295	7694	8393	8393
K	664	664	664	747	830	6641	5811	6641	4981	4981	7471
Mg	3016	3016	3016	4222	4222	14475	3016	3016	3619	3619	3619
Mn	77	77	77	77	77	155	77	77	77	77	77
Mo	20	10	<10	<10	10	<10	<10	<10	<10	20	<10
Na	3709	2967	3709	2967	3709	11870	12612	14095	12612	12612	16321
Ni	20	20	20	20	20	40	10	10	10	20	20
P	1309	1309	873	873	873	873	873	873	873	873	436
Pb	100	100	90	100	100	100	80	90	200	100	200
S	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Sr	50	40	50	60	50	100	100	100	100	100	100
Ti	360	360	360	480	420	600	480	600	600	600	600
U	<10	<10	<10	<10	<10	60	<10	<10	<10	<10	<10
V	60	20	<10	<10	20	30	<10	<10	<10	20	30
Zn	50	50	100	40	30	60	20	20	40	40	40
Zr	<10	30	30	60	30	60	30	30	30	30	30

Table 7: Sediment chemistry for the 0-5 and 10-15 cm horizons for cores collected along a transect radiating from the delta to the deep water portion of Upper Link Lake, Rabbit Lake 1999

Analyte		UB17		UB18		UB19		UB20		UB21	
		0-5 cm	10-15 cm	0-5 cm	10-15 cm	0-5 cm	10-15 cm	0-5 cm	10-15 cm	0-5 cm	10-15 cm
Inorganic ions ug/g	Ca	6000	2600	2900	3100	3000	2800	2400	3800	3100	4800
	Mg	14300	100000	66400	10400	6900	67800	76000	3400	52600	3900
	K	2300	2200	3700	2400	4500	4400	4000	1800	3900	2800
	Na	200	230	290	270	250	340	290	120	330	150
	SO_4, acid soluble	5900	1100	2200	830	1100	2300	1700	4300	2800	4000
Metals ug/g	Al	20300	81800	64700	83400	21800	67000	71300	10100	53300	16400
	Ba	48	45	73	49	50	77	71	39	77	56
	Ba	30	160	140	230	23	120	140	14	100	24
	Cd	1.8	1.9	2	1.8	1.4	2	2.1	0.5	2	<0.5
	Cr	27	40	43	82	35	34	54	13	60	10
	Cu	65	420	220	500	8.3	230	180	12	140	14
	Fe	26000	28500	29500	27900	24200	29500	31500	7500	29100	6600
	Pb	25	460	300	410	8	240	210	11	160	7
	Mn	190	240	240	280	150	240	250	100	230	110
	Mo	14	43	42	46	9.4	53	32	5	50	6
	Ni	33	180	140	200	22	140	150	11	110	14
	Ag	1	15	304	3.7	<0.5	3	2.7	<0.5	2.7	<0.5
	Ti	330	260	360	290	520	430	360	120	360	220
	Zn	42	62	200	40	27	170	150	22	170	29
	Zr	34	33	43	70	22	25	50	11	45	8.5
Nutrients	Organic C %	11.53	0.66	2.85	0.52	3.42	2.48	2.46	15.18	4.02	15.2
	P ug/g	680	650	950	490	670	980	950	540	1000	520
Physical properties %	Moisture	85.08	60.36	77.55	60.62	74.87	78.91	80.28	89.97	83.61	87.53
	Wt. % LOI @500^{o}C	28.66	6.24	10.14	5.12	13.19	8.6	9.37	35.71	11.65	34.1
	Wt. % sand	0.93	4.74	0.27	0.03	0.03	0.14	0.14	0.17	0.19	1.35
	Wt. % clay	11.86	13.16	27.35	25.12	15.16	39.95	52.33	35.55	45.98	45.99
	Wt. % silt	87.21	82.11	72.39	74.85	84.8	59.92	47.53	67.27	53.38	52.66
Radionuclides	^{226}Ra Bq/g	7.7	52	42	54	1.4	25	23	1.3	16	0.85
	U ug/g	1460	4080	4540	4130	178	4320	3900	289	4090	276
Trace elements ug/g	As	12	33	37	26	6.9	32	28	4.8	30	3.3
	Be	2.1	9.7	7.5	9.9	1.6	7.3	7.8	0.8	6.1	1.1
	Co	9.5	39	29	46	6.7	30	29	3.5	24	4.1
	Sr	49	40	81	57	100	91	82	30	90	31
	V	49	240	180	280	30	180	180	15	150	17

Table 8: Concentrations of Elements in Terrestrial and Semi-aquatic Vascular Vegetation (29-Aug-98) unit: ug/g

AREA	A		B	C	D	E		Ref. 1	Ref. 2	Ref. 3
Location	W2 Pond		RLP Wetland Plot 1	Plot 2	Plot 3	Plot 4				
Vegetation	Equisetum arvense	Carex aquatilis	Carex aquatilis	Typha angustifolia	Hippuris vulgaris	Salix spp. branches	Salix spp. leaves			
B	<0.5	<0.5	<0.5	<0.5	2.5	14	15	5 - 200	10-80	<5 - 20
P	1200	1300	1100	710	880	880	2400	N/A	500 - 3000	N/A
Ag	0.5	<0.2	0.3	<0.2	<0.2	<0.2	<0.2	0.01 - 0.5	N/A	0.03 - 0.5
Al	7900	990	11800	220	16200	220	200	10 - 1000	100 - 1000	60 - 14500
As	4.5	4	70	2.2	280	1.3	4.1	0.009 - 1.7	0.1 - 1.0	0.009 - 1.5
Ba	22	20	67	19	130	13	8.2	1 - 198	0.5 - 20	1 - 198
Be	0.6	<0.2	0.7	<0.2	1.1	<0.2	<0.2	0.001 - 0.4	0.02	0.001 - 0.4
Ca	6300	2200	6000	10400	11600	4900	11500	N/A	3000 - 25000	N/A
Cd	0.23	0.09	0.39	<0.05	0.95	0.14	0.07	0.1 - 1.0	0.01 - 0.3	0.07 - 0.27
Co	3.7	1	4.4	<0.2	9.6	0.4	1.3	0.03 - 0.27	0.1 - 0.6	0.03 - 0.27
Cr	7.3	1.6	9	0.3	14	0.5	0.4	0.02 - 0.2	0.05 - 0.5	0.11 - 0.35
Cu	22	7.8	12	1.9	20	5	3.3	1-10	2.5 - 25	1.5 - 18.5
Fe	2200	650	5600	120	13000	160	120	20 - 100	40 - 500	2127 - 3580
K	10400	9800	9000	14700	21300	2500	7200	N/A	5000 - 30000	N/A
Mg	10200	1200	9000	2700	17200	1100	3400	N/A	1000 - 5000	N/A
Mn	220	410	560	520	5600	140	390	10 - 500	50 - 1000	17 - 334
Mo	7.5	2.4	5.4	4.3	13	<0.1	0.2	0.1 - 3.0	0.1 - 0.8	0.4 - 8.0
Na	180	310	140	860	4000	70	70	N/A	200 - 3000	N/A
Ni	18	10	42	5.1	170	4.3	13	0.3 - 3.5	0.5 - 5	0.1 - 1.7
Pb	6.9	2.3	9.7	0.9	40	1.4	0.5	1	0.05 - 3	<1.2 - 3.6
Sr	39	15	40	25	53	16	22	3-3000	2-50	6-37
Ti	45	18	88	2	110	3	2.7	0.1 - 4.6	0.4 - 8	0.15 - 80
V	12	1.5	14	<0.2	30	<0.2	<0.2	0.27 - 4.2	0.02 - 2	N/A
Zn	24	120	21	8.3	26	140	130	10 - 100	15 - 100	12-47
Zr	6.2	<0.2	7.3	<0.2	15	<0.2	<0.2	0.3 - 2.0	0.05 - 1.0	0.005 - 2.6
U	1060	767	691	12.5	222	6.3	4.8	0.0005-0.06	N/A	N/A
Pb^{210} (Bq/g)	3.2	1.2	0.71	0.1	9.3	0.06	0.13	N/A	N/A	N/A
Po^{210} (Bq/g)	1.5	0.99	1.1	0.05	9.3	0.08	0.06	N/A	N/A	0.008 - 0.012
Ra^{226} (Bq/g)	1.9	1.4	2.4	0.28	17	0.12	0.11	N/A	N/A	$2x10^{-7}$ - 0.0621 *

Ref 1: The Handbook of Trace Elements

Ref 2: Chemical Analysis of Ecological Materials

Ref 3: CRC Trace Elements in Soils and Plants

* From Table 4 in Appendix 2 page 14.

Table 8: Concentrations of Elements in Terrestrial and Semi-aquatic Vascular Vegetation (Aug-1998) (continuation) unit: ug/g

AREA	F	G	H	I	J	Ref. 1	Ref. 2	Ref. 3
Location	W5 Plot 6	W9 Plot 7	ULL Vegetated Delta	ULL Vegetated Delta	ULL Delta			
Vegetation	Calamagrostis canadensis	Hordeum jubatum	Carex aquatilis	Calamagrostis canadensis	Myriophyllum sp.			
B	<0.5	<0.5	9	5.9	24	5 - 200	10-80	<5 - 20
P	2500	1400	1400	560	3100	N/A	500 - 3000	N/A
Ag	<0.2	0.6	0.3	<0.2	1.1	0.01 - 0.5	N/A	0.03 - 0.5
Al	260	11500	260	50	910	10 - 1000	100 - 1000	60 - 14500
As	1.7	5.9	3.2	0.5	10	0.009 - 1.7	0.1 - 1.0	0.009 - 1.5
Ba	30	37	24	16	80	1 - 198	0.5 - 20	1 - 198
Be	<0.2	0.7	<0.2	<0.2	0.2	0.001 - 0.4	0.02	0.001 - 0.4
Ca	2100	17900	3100	1500	20200	N/A	3000 - 25000	N/A
Cd	<0.05	0.34	0.06	<0.05	0.3	0.1 - 1.0	0.01 - 0.3	0.07 - 0.27
Co	<0.2	4.7	0.9	<0.2	3.2	0.03 - 0.27	0.1 - 0.6	0.03 - 0.27
Cr	0.7	9.2	0.8	0.2	2.9	0.02 - 0.2	0.05 - 0.5	0.11 - 0.35
Cu	8	25	2.7	1.4	9.8	1-10	2.5 - 25	1.5 - 18.5
Fe	220	4500	690	71	4500	20 - 100	40 - 500	2127 - 3580
K	15500	18900	8100	4800	19600	N/A	5000 - 30000	N/A
Mg	1400	20100	1400	850	4500	N/A	1000 - 5000	N/A
Mn	400	150	270	120	660	10 - 500	50 - 1000	17 - 334
Mo	6.2	17	6.1	0.6	13	0.1 - 3.0	0.1 - 0.8	0.4 - 8.0
Na	40	380	160	90	14300	N/A	200 - 3000	N/A
Ni	5.9	21	9.4	0.8	6.2	0.3 - 3.5	0.5 - 5	0.1 - 1.7
Pb	1	15	1.8	0.5	6.9	1	0.05 - 3	<1.2 - 3.6
Sr	18	86	20	12	110	3-3000	2-50	6-37
Ti	4.8	59	4.2	1	7.4	0.1 - 4.6	0.4 - 8	0.15 - 80
V	0.3	15	0.4	<0.2	3.4	0.27 - 4.2	0.02 - 2	N/A
Zn	94	40	23	16	33	10 - 100	15 - 100	12-47
Zr	<0.2	8.5	<0.2	<0.2	1.9	0.3 - 2.0	0.05 - 1.0	0.005 - 2.6
U	49.5	14.3	420	5.3	1790	0.0005-0.06	N/A	N/A
Pb^{210} (Bq/g)	0.2	0.09	2.9	0.11	1.7	N/A	N/A	N/A
Po^{210} (Bq/g)	0.26	0.06	0.19	0.04	0.75	N/A	N/A	0.008 - 0.012
Ra^{226} (Bq/g)	0.44	0.3	0.78	0.38	4.9	N/A	N/A	$2x10^{-7}$ - 0.0621 *

Ref 1: The Handbook of Trace Elements

Ref 2: Chemical Analysis of Ecological Materials

Ref 3: CRC Trace Elements in Soils and Plants

* From Table 4 in Appendix 2 page 14.

Table 9: Concentrations of Elements in Macrophytic Algae (Nitella Flexilis)and Literature References, 1998

Element ug/g	BAD	Upper Link Lake				Lower Link Lake		Wollaston L.	Ref. 1	Ref. 2	Ref. 3
	W20 BAD	TZ-1 @ 8m	TZ-1 @ 80m	middle	TZ-2 @ 0m	Trans 1@3	Trans 4 @ 2	Ivison Bay			
B	<0.5	16	16	13	29	17	10	8.7	5 - 200	10-80	<5 - 20
P	5400	3600	4000	4200	2600	2000	2400	1300	N/A	500 - 3000	N/A
Ag	1.6	2	0.7	0.6	0.6	0.6	0.6	<0.2	0.01 - 0.5	N/A	0.03 - 0.5
Al	5400	3300	4200	2500	10500	4300	4900	2100	10 - 1000	100 - 1000	60 - 14500
As	15	15	36	33	34	9.7	8.4	6	0.009 - 1.7	0.1 - 1.0	0.009 - 1.5
Ba	93	42	120	74	68	97	87	120	1 - 198	0.5 - 20	1 - 198
Be	0.5	0.5	0.4	0.3	1	0.4	0.4	<0.2	0.001 - 0.4	0.02	0.001 - 0.4
Ca	13100	13500	18700	18300	17200	17100	14800	11300	N/A	3000 - 25000	N/A
Cd	0.97	0.52	0.73	0.73	0.79	0.62	0.69	0.84	0.1 - 1.0	0.01 - 0.3	0.07 - 0.27
Co	5.2	2.8	4.5	4	7.7	3.3	3.2	4.5	0.03 - 0.27	0.1 - 0.6	0.03 - 0.27
Cr	6.9	6	4.6	3	9.8	5.4	5.4	3.3	0.02 - 0.2	0.05 - 0.5	0.11 - 0.35
Cu	23	20	21	13	53	18	15	24	1-10	2.5 - 25	1.5 - 18.5
Fe	13200	7800	11500	12100	12500	7800	9500	10800	20 - 100	40 - 500	2127 - 3580
K	23000	29100	27300	23400	22700	14500	20300	8900	N/A	5000 - 30000	N/A
Mg	6400	7600	11800	10000	21300	4700	5400	3300	N/A	1000 - 5000	N/A
Mn	3200	200	850	1300	1000	1900	2700	1700	10 - 500	50 - 1000	17 - 334
Mo	39	35	9.9	8.5	12	15	14	7.9	0.1 - 3.0	0.1 - 0.8	0.4 - 8.0
Na	10100	12400	9500	8200	5700	4200	8000	1500	N/A	200 - 3000	N/A
Ni	10	8.5	11	9	23	8.4	8.4	5.9	0.3 - 3.5	0.5 - 5	0.1 - 1.7
Pb	9.5	12	18	8.7	52	4.5	4.5	2.9	1	0.05 - 3	<1.2 - 3.6
Sr	50	51	65	63	58	61	49	41	3-3000	2-50	6-37
Ti	61	28	26	18	49	85	88	110	0.1 - 4.6	0.4 - 8	0.15 - 80
V	9.5	8.3	11	6.6	32	9.5	8.1	4.8	0.27 - 4.2	0.02 - 2	N/A
Zn	70	35	43	32	40	30	29	23	10 - 100	15 - 100	12-47
Zr	4.1	4.1	3.6	2.9	6.7	5.9	3.9	2.9	0.3 - 2.0	0.05 - 1.0	0.005 - 2.6
U	2380	3070	950	683	759	904	830	5.7	500 - 60000	N/A	N/A
Pb^{210} (Bq/g)	2.2	1.8	4.6	1.2	10	1.4	1.6	0.15	N/A	N/A	N/A
Po^{210} (Bq/g)	1.4	1.1	2.3	1.2	3.7	0.74	0.53	0.17	N/A	N/A	0.008 - 0.012
Ra^{226} (Bq/g)	5	2.5	9.4	6.6	10	2.1	1.8	0.14	N/A	N/A	$2x10^{-7}$ - 0.0621 *

Ref 1: The Handbook of Trace Elements.

Ref 2: Chemical Analysis of Ecological Materials.

Ref 3: CRC Trace Elements in Soils and Plants

* From Table 4 in Appendix 2 page 14.

Table 10: Sediment chemistry for the 0-5 and 10-15cm horizons for cores collected along a transect radiating from the delta to the deep water portion of Upper Link Lake, Rabbit Lake, 1999

Analyte (ug/g)	UB 17			UB 18			UB 19			UB 20			UB 21		
	0-5 cm a	10-15 cm b	a - b	0-5 cm a	10-15 cm b	a - b	0-5 cm a	10-15 cm b	a - b	0-5 cm a	10-15 cm b	a - b	0-5 cm a	10-15 cm b	a - b
Ca	6000	2600	3400	2900	3100	-200	3000	2800	200	2400	3800	-1400	3100	4800	-1700
Mg	14300	100000	-85700	66400	104000	-37600	6900	67800	-60900	76000	3400	72600	52600	3900	48700
K	2300	22200	-19900	3700	2400	1300	4500	4400	100	4000	1800	2200	3900	2800	1100
Na	200	230	-30	290	270	20	250	340	-90	290	120	170	330	150	180
SO_4 (acid soluble)	5900	1100	4800	2200	830	1370	1100	2300	-1200	1700	4300	-2600	2800	4000	-1200
Al	20300	81800	-61500	64700	83400	-18700	21800	67000	-45200	71300	10100	61200	53300	16400	36900
Ba	48	45	3	73	49	24	50	77	-27	71	39	32	77	56	21
B	30	160	-130	140	230	-90	23	120	-97	140	14	126	100	24	76
Cd	1.8	1.9	-0.1	2	1.8	0.2	1.4	2	-0.6	2.1	0.5	1.6	2	0.5	1.5
Cr	27	40	-13	43	82	-39	35	34	1	54	13	41	60	10	50
Cu	65	420	-355	220	500	-280	8.3	230	-221.7	180	12	168	140	14	126
Fe	26000	28500	-2500	29500	27900	1600	24200	29500	-5300	31500	7500	24000	29100	6600	22500
Pb	25	460	-435	300	410	-110	8	240	-232	210	11	199	160	7	153
Mn	190	240	-50	240	280	-40	150	240	-90	250	100	150	230	110	120
Mo	14	43	-29	42	46	-4	9.4	53	-43.6	32	5	27	50	6	44
Ni	33	180	-147	140	200	-60	22	140	-118	150	11	139	110	14	96
Ag	1	15	-14	3.4	3.7	-0.3	0.5	3	-2.5	2.7	0.5	2.2	2.7	0.5	2.2
Ti	330	260	70	360	290	70	520	430	90	360	120	240	360	220	140
Zn	42	62	-20	200	40	160	27	170	-143	150	22	128	170	29	141
Zr	34	33	1	43	70	-27	22	25	-3	50	11	39	45	8.5	36.5
Organic Carbon	11.53	0.66	10.87	2.85	0.52	2.33	3.42	2.48	0.94	2.46	15.18	-12.72	4.02	15.2	-11.18
P	680	650	30	950	490	460	670	980	-310	950	540	410	1000	520	480
Moisture %	85.08	60.36	24.72	77.55	60.62	16.93	74.87	78.91	-4.04	80.28	89.97	-9.69	83.61	87.53	-3.92
Wt. % LOI @ 500 ^{o}C	28.66	6.24	22.42	10.14	5.12	5.02	13.19	8.6	4.59	9.37	35.71	-26.34	11.65	34.1	-22.45
Wt. % Sand	0.93	4.74	-3.81	0.27	0.03	0.24	0.03	0.14	-0.11	0.14	0.17	-0.03	0.19	1.35	-1.16
Wt. % Clay	11.86	13.16	-1.3	27.35	25.12	2.23	15.16	39.95	-24.79	52.33	32.55	19.78	45.98	45.99	-0.01
Wt. % Silt	87.21	82.11	5.1	72.39	74.85	-2.46	84.8	59.92	24.88	47.33	67.27	-19.94	53.83	52.66	1.17
^{226}Ra Bq/g	7.7	52	-44.3	42	54	-12	1.4	25	-23.6	23	1.3	21.7	16	0.85	15.15
U	1460	4080	-2620	4540	4130	410	178	4320	-4142	3900	289	3611	4090	276	3814
As	12	33	-21	37	26	11	6.9	32	-25.1	28	4.8	23.2	30	3.3	26.7
Be	2.1	9.7	-7.6	7.5	9.9	-2.4	1.6	7.3	-5.7	7.8	0.8	7	6.1	1.1	5
Co	9.5	39	-29.5	29	46	-17	6.7	30	-23.3	29	3.5	25.5	24	4.1	19.9
Sr	49	40	9	81	57	24	100	91	9	82	30	52	90	31	59
V	49	240	-191	180	280	-100	30	180	-150	180	15	165	150	17	133

Table 11: Correlation Between U and ^{226}Ra with Other Elements in Sediment, 1999

correlation between U and				correlation between Ra^{226} and			
0 - 5 cm		10 -15 cm		0 - 5 cm		10 -15 cm	
Ag	0.9884	Fe	0.9993	Pb	0.9657	Cu	0.9949
As	0.9854	Cd	0.9978	Cu	0.9422	Pb	0.9913
Zn	0.9798	As	0.9832	As	0.9086	Mg	0.9855
V	0.9724	Al	0.9737	Ag	0.9085	V	0.9787
Co	0.9692	Be	0.9636	B	0.8781	Co	0.9768
Mn	0.9659	Co	0.9474	Zn	0.8780	Be	0.9738
Cu	0.9646	V	0.9474	Co	0.8597	Ni	0.9728
P	0.9574	Mg	0.9470	V	0.8536	B	0.9639
Be	0.9550	Pb	0.9077	U	0.8509	Al	0.9598
Ni	0.9472	Na	0.9068	Be	0.8476	Mn	0.9269
B	0.9410	B	0.8899	Ni	0.8435	U	0.8790
Ba	0.9401	Cu	0.8834	Mg	0.8215	Fe	0.8762
Mg	0.9388	Ra^{226}	0.8790	Al	0.8166	Cr	0.8710
Pb	0.9308	Cr	0.7555	Mn	0.7990	Zr	0.8597
Mo	0.9307	Mo	0.7339	Fe	0.7355	Cd	0.8576
Zr	0.9276	Sr	0.7216	P	0.7252	As	0.8469
Cd	0.9263	Ni	0.6037	Ba	0.7229	Mo	0.8219
Fe	0.9199	Wt. % Silt	0.5504	Cd	0.7144	Wt. % Silt	0.8014
Al	0.9180	Zn	0.5355	Mo	0.6951	Ag	0.7208
Ra^{226}	0.8509	Ti	0.5349	Zr	0.6821	Na	0.6211
Wt. % Clay	0.7510	Zr	0.4766	Na	0.4895	K	0.5568
Na	0.7459	Ag	0.4659	Wt. % Clay	0.3953	Ti	0.4366
Cr	0.7417	Mn	0.4466	Cr	0.3761	Wt. % Sand	0.3923
Moisture %	0.2272	K	0.4410	K	0.0432	Sr	0.3279
K	0.0587	Organic Carbon	0.4303	Sr	0.00105	Zn	0.1717
Sr	0.04020	Wt. % Sand	0.4191	Moisture %	-0.1203	P	0.0583
SO_4	-0.1356	Ba	0.3886	Wt. % Sand	-0.1478	Ba	-0.0487
Wt. % Sand	-0.1869	P	-0.3485	SO_4	-0.2005	Wt. % Clay	-0.7895
Organic Carbon	-0.4295	Wt. % Clay	-0.5332	Wt. % Silt	-0.3954	Ca	-0.7922
Ca	-0.4390	Moisture %	-0.7879	Ca	-0.4056	Wt. % LOI @ 500 ^{o}C	-0.9283
Wt. % LOI @ 500 ^{o}C	-0.5320	Ca	-0.8964	Organic Carbon	-0.4356	Organic Carbon	-0.9374
Ti	-0.6612	SO_4	-0.9218	Ti	-0.4919	SO_4	-0.9911
Wt. % Silt	-0.7533	Wt. % LOI @ 500 ^{o}C	-0.9951	Wt. % LOI @ 500 ^{o}C	-0.4952	Moisture %	-0.9922

Table 12: Sampling Locations with Codes and Descriptions

New Boojum Code	Old Boojum Code (SRC submit)	Description	Graph Abbrev.	E.R. Code
W1		North Waserock Pond	NP	
W2		Wasterock Pond	WP	1 . 1 . 1
W3		North Drainage Ditch	ND	1 . 1
W4		Soty Drainage Ditch	SD	1 . 2
W5		Airport Road	AR	1 . 1 . 2
W6	4	Old Airport Road	OR	1 . 2 . 5
W7		Flow Prior to Delta Wetland	DH	1 . 3
W8	1	Delta Pond Inflow	DP	1 . 3 . 1
W9	3	ULL Inflow	UI	
W10	3A	ULL off Delta	UD	
W11	14	ULL off Fresh Inflow	NW	
W12	2	ULL Fresh Inflow	UF	
W13	15	ULL Centre	UC	
W14		ULL at Narrows	UN	1 . 4 . 1
W15		Sedimentation Dam	UO	1 . 4
W16	5	Wooden Area Headwater	WH	1 . 411
W17	6 (F), 10 (UF)	Bad Inflow Iron	BF	
W18	7	Bad Inflow Clear	BC	
W19		Bad Head (Z1)	BH	1 . 412
W20	13	Bad, Beaver House Before Dam	BB	1 . 413
W21	16	Fresh Inflow to Bad	FB	
W22		Intermediate Bog (BBD)	IB	
W23	12	LLL Headwater	LH	1 . 41
W24	8	LLL Outflow	LO	
W25	9	LLL Outflow over Beaver Dam	LC	1 . 4 . 5
W26	11	Pow Bay Inflow	LD	
W27		Pow Bay at Large	PB	1 . 5

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
4-Dec-86				0.509			5.9	0.75	0.094
1-Jan-87	13.0	23.34	48.34	0.3335	0.424	0.051	3.825	0.75	0.17
2-Jan-87	13.0	23.34	48.34	0.3335	0.424	0.051	3.825	0.75	0.17
3-Jan-87	13.0	23.34	48.34	0.3335	0.424	0.051	3.825	0.75	0.17
4-Jan-87	13.0	23.34	48.34	0.3335	0.424	0.051	3.825	0.75	0.17
5-Jan-87	13.0	23.34	48.34	0.3335	0.424	0.051	3.825	0.75	0.17
6-Jan-87	13.0	23.34	48.34	0.3335	0.424	0.051	3.825	0.75	0.17
7-Jan-87	13.0	23.34	48.34	0.3335	0.424	0.051	3.825	0.75	0.17
8-Jan-87	13.0	23.34	48.34	0.3335	0.424	0.051	3.825	0.75	0.17
9-Jan-87	13.0	23.34	48.34	0.158	0.424	0.051	1.75	0.75	0.17
10-Jan-87	13.0	23.34	48.34	0.18	0.424	0.051	1.58	0.75	0.17
11-Jan-87	13.0	23.34	48.34	0.179	0.424	0.051	1.575	0.75	0.17
12-Jan-87	13.0	23.34	48.34	0.179	0.424	0.051	1.575	0.75	0.17
13-Jan-87	13.0	23.34	48.34	0.179	0.424	0.051	1.575	0.75	0.17
14-Jan-87	13.0	23.34	48.34	0.179	0.424	0.051	1.575	0.75	0.17
15-Jan-87	13.0	23.34	48.34	0.179	0.424	0.051	1.575	0.75	0.17
16-Jan-87	13.0	23.34	48.34	0.179	0.424	0.051	1.575	0.75	0.17
17-Jan-87	13.0	23.34	48.34	0.179	0.424	0.051	1.575	0.75	0.17
18-Jan-87	13.0	23.34	48.34	0.179	0.424	0.051	1.575	0.75	0.17
19-Jan-87	13.0	23.34	48.34	0.179	0.551	0.0545	1.575	0.7725	0.215
20-Jan-87	13.0	23.34	48.34	0.179	0.551	0.0545	1.575	0.7725	0.215
21-Jan-87	13.0	23.34	48.34	0.179	0.551	0.0545	1.575	0.7725	0.215
22-Jan-87	13.0	23.34	48.34	0.179	0.551	0.0545	1.575	0.7725	0.215
23-Jan-87	13.0	23.34	48.34	0.179	0.551	0.0545	1.575	0.7725	0.215
24-Jan-87	13.0	23.34	48.34	0.179	0.551	0.0545	1.575	0.7725	0.215
25-Jan-87	13.0	23.34	48.34	0.179	0.551	0.0545	1.575	0.7725	0.215
26-Jan-87	13.0	23.34	48.34	0.179	0.551	0.0545	1.575	0.7725	0.215
27-Jan-87	13.0	23.34	48.34	0.179	0.551	0.0545	1.575	0.7725	0.215
28-Jan-87	13.0	23.34	48.34	0.179	0.551	0.0545	1.575	0.7725	0.215
29-Jan-87	13.0	23.34	48.34	0.179	0.551	0.0545	1.575	0.7725	0.215
30-Jan-87	13.0	23.34	48.34	0.179	0.551	0.0545	1.575	0.7725	0.215
31-Jan-87	13.0	18.51	43.51	0.179	0.551	0.0545	1.575	0.7725	0.215
1-Feb-87	13.0	18.51	43.51	0.179	0.551	0.0545	1.575	0.7725	0.215
2-Feb-87	13.0	18.51	43.51	0.179	0.551	0.0545	1.575	0.7725	0.215
3-Feb-87	13.0	18.51	43.51	0.179	0.551	0.0545	1.575	0.7725	0.215
4-Feb-87	13.0	18.51	43.51	0.179	0.551	0.0545	1.575	0.7725	0.215
5-Feb-87	13.0	18.51	43.51	0.179	0.551	0.0545	1.575	0.7725	0.215
6-Feb-87	13.0	18.51	43.51	0.179	0.551	0.0545	1.575	0.7725	0.215
7-Feb-87	13.0	18.51	43.51	0.179	0.551	0.0545	1.575	0.7725	0.215

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
8-Feb-87	13.0	18.51	43.51	0.179	0.551	0.0545	1.575	0.7725	0.215
9-Feb-87	13.0	18.51	43.51	0.179	0.551	0.0545	1.575	0.7725	0.215
10-Feb-87	13.0	17.97	42.97	0.179	0.551	0.0545	1.575	0.7725	0.215
11-Feb-87	13.0	17.97	42.97	0.179	0.551	0.0545	1.575	0.7725	0.215
12-Feb-87	13.0	17.97	42.97	0.179	0.551	0.0545	1.575	0.7725	0.215
13-Feb-87	13.0	17.97	42.97	0.179	0.551	0.0545	1.575	0.7725	0.215
14-Feb-87	13.0	17.97	42.97	0.179	0.551	0.0545	1.575	0.7725	0.215
15-Feb-87	13.0	17.97	42.97	0.179	0.551	0.0545	1.575	0.7725	0.215
16-Feb-87	13.0	17.97	42.97	0.179	0.551	0.0545	1.575	0.7725	0.215
17-Feb-87	13.0	17.97	42.97	0.179	0.551	0.0545	1.575	0.7725	0.215
18-Feb-87	13.0	17.97	42.97	0.179	0.551	0.0545	1.575	0.7725	0.215
19-Feb-87	13.0	17.97	42.97	0.2	0.678	0.0545	1.4	0.795	0.215
20-Feb-87	34.0	38.14	63.14	0.175	0.5875	0.0545	1.45	0.7575	0.215
21-Feb-87	34.0	38.14	63.14	0.175	0.5875	0.0545	1.45	0.7575	0.215
22-Feb-87	34.0	38.14	63.14	0.175	0.5875	0.0545	1.45	0.7575	0.215
23-Feb-87	34.0	38.14	63.14	0.175	0.5875	0.0545	1.45	0.7575	0.215
24-Feb-87	34.0	38.14	63.14	0.175	0.5875	0.0545	1.45	0.7575	0.215
25-Feb-87	34.0	38.14	63.14	0.175	0.5875	0.0545	1.45	0.7575	0.215
26-Feb-87	34.0	38.14	63.14	0.175	0.5875	0.0545	1.45	0.7575	0.215
27-Feb-87	34.0	38.14	63.14	0.175	0.5875	0.0545	1.45	0.7575	0.215
28-Feb-87	34.0	38.14	63.14	0.175	0.5875	0.0545	1.45	0.7575	0.215
1-Mar-87	34.0	38.14	63.14	0.175	0.5875	0.0545	1.45	0.7575	0.215
2-Mar-87	34.0	31.13	56.13	0.175	0.5875	0.0545	1.45	0.7575	0.215
3-Mar-87	34.0	31.13	56.13	0.175	0.5875	0.0545	1.45	0.7575	0.215
4-Mar-87	34.0	31.13	56.13	0.15	0.497	0.0545	1.5	0.72	0.215
5-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
6-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
7-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
8-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
9-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
10-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
11-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
12-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
13-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
14-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
15-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
16-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
17-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
18-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
19-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
20-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
21-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
22-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
23-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
24-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
25-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
26-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
27-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
28-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
29-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
30-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
31-Mar-87	34.0	31.13	56.13	0.144	0.356	0.0545	1.1275	0.67	0.215
1-Apr-87	34.0	46.16	71.16	0.144	0.356	0.0545	1.1275	0.67	0.215
2-Apr-87	34.0	46.16	71.16	0.144	0.356	0.0545	1.1275	0.67	0.215
3-Apr-87	34.0	46.16	71.16	0.144	0.356	0.0545	1.1275	0.67	0.215
4-Apr-87	34.0	46.16	71.16	0.144	0.356	0.0545	1.1275	0.67	0.215
5-Apr-87	34.0	46.16	71.16	0.144	0.356	0.0545	1.1275	0.67	0.215
6-Apr-87	34.0	46.16	71.16	0.144	0.356	0.0545	1.1275	0.67	0.215
7-Apr-87	34.0	46.16	71.16	0.144	0.356	0.0545	1.1275	0.67	0.215
8-Apr-87	54.9	67.11	92.11	0.138	0.356	0.0545	0.755	0.67	0.215
9-Apr-87	52.8	64.96	89.96	0.1465	0.356	0.0545	1.5275	0.67	0.215
10-Apr-87	52.8	64.96	89.96	0.1465	0.356	0.0545	1.5275	0.67	0.215
11-Apr-87	52.8	64.96	89.96	0.1465	0.356	0.0545	1.5275	0.67	0.215
12-Apr-87	52.8	64.96	89.96	0.1465	0.356	0.0545	1.5275	0.67	0.215
13-Apr-87	52.8	64.96	89.96	0.1465	0.356	0.0545	1.5275	0.67	0.215
14-Apr-87	52.8	64.96	89.96	0.1465	0.356	0.0545	1.5275	0.67	0.215
15-Apr-87	52.8	64.96	89.96	0.1465	0.356	0.0545	1.5275	0.67	0.215
16-Apr-87	52.8	64.96	89.96	0.1465	0.356	0.058	1.5275	0.67	0.26
17-Apr-87	52.8	64.96	89.96	0.1465	0.356	0.0465	1.5275	0.67	0.17325
18-Apr-87	52.8	64.96	89.96	0.1465	0.356	0.0465	1.5275	0.67	0.17325
19-Apr-87	52.8	64.96	89.96	0.1465	0.215	0.0465	1.5275	0.62	0.17325
20-Apr-87	52.8	64.96	89.96	0.1465	0.196	0.0465	1.5275	0.585	0.17325
21-Apr-87	52.8	89.44	114.44	0.1465	0.196	0.0465	1.5275	0.585	0.17325
22-Apr-87	52.8	89.44	114.44	0.1465	0.196	0.0465	1.5275	0.585	0.17325
23-Apr-87	52.8	89.44	114.44	0.1465	0.196	0.0465	1.5275	0.585	0.17325
24-Apr-87	50.6	87.29	112.29	0.1465	0.196	0.0465	1.5275	0.585	0.17325
25-Apr-87	52.8	89.49	114.49	0.1465	0.196	0.0465	1.5275	0.585	0.17325
26-Apr-87	52.8	89.49	114.49	0.1465	0.196	0.0465	1.5275	0.585	0.17325

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
27-Apr-87	55.9	92.59	117.59	0.1465	0.196	0.0465	1.5275	0.585	0.17325
28-Apr-87	60.4	97.09	122.09	0.1465	0.196	0.0465	1.5275	0.585	0.17325
29-Apr-87	57.3	93.99	118.99	0.1465	0.196	0.0465	1.5275	0.585	0.17325
30-Apr-87	54.5	91.19	116.19	0.1465	0.196	0.0465	1.5275	0.585	0.17325
1-May-87	54.5	218.04	243.04	0.1465	0.196	0.0465	1.5275	0.585	0.17325
2-May-87	54.5	218.04	243.04	0.1465	0.196	0.0465	1.5275	0.585	0.17325
3-May-87	54.5	218.04	243.04	0.1465	0.196	0.0465	1.5275	0.585	0.17325
4-May-87	54.5	218.04	243.04	0.1465	0.196	0.0465	1.5275	0.585	0.17325
5-May-87	49.9	213.44	238.44	0.1465	0.196	0.0465	1.5275	0.585	0.17325
6-May-87	48.5	212.04	237.04	0.1465	0.196	0.0465	1.5275	0.585	0.17325
7-May-87	45.7	209.24	234.24	0.155	0.177	0.0465	2.3	0.55	0.17325
8-May-87	44.5	208.04	233.04	0.143	0.197	0.0465	2.2	0.645	0.17325
9-May-87	38.0	201.54	226.54	0.143	0.197	0.0465	2.2	0.645	0.17325
10-May-87	34.6	198.14	223.14	0.143	0.197	0.0465	2.2	0.645	0.17325
11-May-87	43.1	149.20	174.20	0.143	0.197	0.0465	2.2	0.645	0.17325
12-May-87	40.6	146.70	171.70	0.143	0.197	0.0465	2.2	0.645	0.17325
13-May-87	30.1	136.20	161.20	0.143	0.197	0.0465	2.2	0.645	0.17325
14-May-87	22.4	128.50	153.50	0.143	0.197	0.0465	2.2	0.645	0.17325
15-May-87	21.6	127.70	152.70	0.143	0.197	0.0465	2.2	0.645	0.17325
16-May-87	27.1	133.20	158.20	0.143	0.197	0.0465	2.2	0.645	0.17325
17-May-87	38.0	144.10	169.10	0.143	0.197	0.0465	2.2	0.645	0.17325
18-May-87	40.6	146.70	171.70	0.143	0.197	0.0465	2.2	0.645	0.17325
19-May-87	38.0	144.10	169.10	0.143	0.197	0.0465	2.2	0.645	0.17325
20-May-87	38.0	144.10	169.10	0.143	0.197	0.0465	2.2	0.645	0.17325
21-May-87	36.9	118.83	143.83	0.143	0.197	0.0465	2.2	0.645	0.17325
22-May-87	31.2	113.13	138.13	0.143	0.197	0.0465	2.2	0.645	0.17325
23-May-87	34.6	116.53	141.53	0.143	0.197	0.0465	2.2	0.645	0.17325
24-May-87	34.6	116.53	141.53	0.143	0.197	0.0465	2.2	0.645	0.17325
25-May-87	34.6	116.53	141.53	0.143	0.197	0.0465	2.2	0.645	0.17325
26-May-87	27.1	109.03	134.03	0.143	0.197	0.0465	2.2	0.645	0.17325
27-May-87	30.1	112.03	137.03	0.143	0.197	0.0465	2.2	0.645	0.17325
28-May-87	34.6	116.53	141.53	0.143	0.197	0.0465	2.2	0.645	0.17325
29-May-87	44.5	126.43	151.43	0.143	0.197	0.0465	2.2	0.645	0.17325
30-May-87	33.5	115.43	140.43	0.143	0.197	0.0465	2.2	0.645	0.17325
31-May-87	48.5	99.17	124.17	0.143	0.197	0.0465	2.2	0.645	0.17325
1-Jun-87	44.5	95.17	120.17	0.143	0.197	0.0465	2.2	0.645	0.17325
2-Jun-87	45.7	96.37	121.37	0.143	0.197	0.0465	2.2	0.645	0.17325
3-Jun-87	47.1	97.77	122.77	0.143	0.197	0.0465	2.2	0.645	0.17325
4-Jun-87	51.3	101.97	126.97	0.143	0.197	0.0465	2.2	0.645	0.17325

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
5-Jun-87	54.5	105.17	130.17	0.143	0.197	0.0465	2.2	0.645	0.17325
6-Jun-87	45.7	96.37	121.37	0.143	0.197	0.0465	2.2	0.645	0.17325
7-Jun-87	43.1	93.77	118.77	0.143	0.197	0.0465	2.2	0.645	0.17325
8-Jun-87	39.4	90.07	115.07	0.143	0.197	0.0465	2.2	0.645	0.17325
9-Jun-87	44.5	95.17	120.17	0.143	0.197	0.0465	2.2	0.645	0.17325
10-Jun-87	35.7	78.39	103.39	0.143	0.197	0.0465	2.2	0.645	0.17325
11-Jun-87	27.1	69.79	94.79	0.143	0.197	0.0465	2.2	0.645	0.17325
12-Jun-87	25.2	67.89	92.89	0.143	0.197	0.0465	2.2	0.645	0.17325
13-Jun-87	24.2	66.89	91.89	0.131	0.197	0.0465	2.1	0.645	0.17325
14-Jun-87	32.3	74.99	99.99	0.159	0.197	0.0465	1.85	0.645	0.17325
15-Jun-87	43.1	85.79	110.79	0.159	0.197	0.0465	1.85	0.645	0.17325
16-Jun-87	43.1	85.79	110.79	0.159	0.197	0.0465	1.85	0.645	0.17325
17-Jun-87	42.0	84.69	109.69	0.159	0.197	0.0465	1.85	0.645	0.17325
18-Jun-87	43.1	85.79	110.79	0.159	0.197	0.0465	1.85	0.645	0.17325
19-Jun-87	45.7	88.39	113.39	0.159	0.217	0.0465	1.85	0.74	0.17325
20-Jun-87	35.7	43.46	68.46	0.159	0.219	0.035	1.85	0.64	0.0865
21-Jun-87	31.2	38.96	63.96	0.159	0.219	0.032	1.85	0.64	0.09225
22-Jun-87	35.7	43.46	68.46	0.159	0.219	0.032	1.85	0.64	0.09225
23-Jun-87	38.0	45.76	70.76	0.159	0.219	0.032	1.85	0.64	0.09225
24-Jun-87	31.2	38.96	63.96	0.159	0.219	0.032	1.85	0.64	0.09225
25-Jun-87	36.9	44.66	69.66	0.159	0.221	0.032	1.85	0.54	0.09225
26-Jun-87	38.0	45.76	70.76	0.159	0.2695	0.032	1.85	0.45	0.09225
27-Jun-87	40.6	48.36	73.36	0.159	0.2695	0.032	1.85	0.45	0.09225
28-Jun-87	39.4	47.16	72.16	0.159	0.2695	0.032	1.85	0.45	0.09225
29-Jun-87	38.0	45.76	70.76	0.159	0.2695	0.032	1.85	0.45	0.09225
30-Jun-87	28.1	47.96	72.96	0.159	0.2695	0.032	1.85	0.45	0.09225
1-Jul-87	25.7	45.56	70.56	0.159	0.2695	0.032	1.85	0.45	0.09225
2-Jul-87	23.3	43.16	68.16	0.159	0.2695	0.032	1.85	0.45	0.09225
3-Jul-87	24.2	44.06	69.06	0.159	0.2695	0.032	1.85	0.45	0.09225
4-Jul-87	21.6	41.46	66.46	0.159	0.2695	0.032	1.85	0.45	0.09225
5-Jul-87	20.7	40.56	65.56	0.159	0.2695	0.032	1.85	0.45	0.09225
6-Jul-87	19.9	39.76	64.76	0.159	0.2695	0.032	1.85	0.45	0.09225
7-Jul-87	22.4	42.26	67.26	0.159	0.2695	0.032	1.85	0.45	0.09225
8-Jul-87	20.7	40.56	65.56	0.159	0.2695	0.032	1.85	0.45	0.09225
9-Jul-87	21.1	40.96	65.96	0.159	0.2695	0.032	1.85	0.45	0.09225
10-Jul-87	21.1	25.12	50.12	0.159	0.2695	0.032	1.85	0.45	0.09225
11-Jul-87	21.5	25.52	50.52	0.159	0.2695	0.032	1.85	0.45	0.09225
12-Jul-87	23.4	27.37	52.37	0.159	0.2695	0.032	1.85	0.45	0.09225
13-Jul-87	23.4	27.37	52.37	0.159	0.2695	0.032	1.85	0.45	0.09225

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
14-Jul-87	23.4	27.37	52.37	0.159	0.2695	0.032	1.85	0.45	0.09225
15-Jul-87	25.2	29.22	54.22	0.159	0.2695	0.032	1.85	0.45	0.09225
16-Jul-87	23.3	27.32	52.32	0.159	0.2695	0.032	1.85	0.45	0.09225
17-Jul-87	22.4	26.42	51.42	0.159	0.2695	0.032	1.85	0.45	0.09225
18-Jul-87	21.5	25.52	50.52	0.187	0.318	0.032	1.6	0.36	0.09225
19-Jul-87	24.2	28.22	53.22	0.1705	0.3335	0.032	1.9	0.3775	0.09225
20-Jul-87	23.3	23.20	48.20	0.1705	0.3335	0.032	1.9	0.3775	0.09225
21-Jul-87	33.4	33.30	58.30	0.1705	0.3335	0.032	1.9	0.3775	0.09225
22-Jul-87	34.5	34.40	59.40	0.1705	0.3335	0.032	1.9	0.3775	0.09225
23-Jul-87	25.2	25.10	50.10	0.1705	0.3335	0.032	1.9	0.3775	0.09225
24-Jul-87	17.5	17.40	42.40	0.1705	0.3335	0.032	1.9	0.3775	0.09225
25-Jul-87	17.1	17.00	42.00	0.1705	0.3335	0.032	1.9	0.3775	0.09225
26-Jul-87	16.0	15.90	40.90	0.1705	0.3335	0.032	1.9	0.3775	0.09225
27-Jul-87	19.1	19.00	44.00	0.1705	0.3335	0.032	1.9	0.3775	0.09225
28-Jul-87	13.9	13.80	38.80	0.1705	0.3335	0.032	1.9	0.3775	0.09225
29-Jul-87	9.2	9.10	34.10	0.1705	0.3335	0.032	1.9	0.3775	0.09225
30-Jul-87	9.7	37.46	62.46	0.1705	0.3335	0.032	1.9	0.3775	0.09225
31-Jul-87	8.7	36.46	61.46	0.1705	0.3335	0.032	1.9	0.3775	0.09225
1-Aug-87	8.2	35.96	60.96	0.1705	0.3335	0.032	1.9	0.3775	0.09225
2-Aug-87	9.2	36.96	61.96	0.1705	0.3335	0.032	1.9	0.3775	0.09225
3-Aug-87	8.2	35.96	60.96	0.1705	0.3335	0.032	1.9	0.3775	0.09225
4-Aug-87	9.7	37.46	62.46	0.1705	0.3335	0.032	1.9	0.3775	0.09225
5-Aug-87	16.0	43.76	68.76	0.1705	0.3335	0.032	1.9	0.3775	0.09225
6-Aug-87	16.0	43.76	68.76	0.1705	0.3335	0.032	1.9	0.3775	0.09225
7-Aug-87	14.6	42.36	67.36	0.1705	0.3335	0.032	1.9	0.3775	0.09225
8-Aug-87	14.6	42.36	67.36	0.1705	0.3335	0.032	1.9	0.3775	0.09225
9-Aug-87	13.3	47.63	72.63	0.154	0.3335	0.032	2.2	0.3775	0.09225
10-Aug-87	13.9	48.23	73.23	0.1195	0.349	0.032	1.6	0.395	0.09225
11-Aug-87	7.7	42.03	67.03	0.1195	0.3435	0.032	1.6	0.4075	0.09225
12-Aug-87	7.7	42.03	67.03	0.1195	0.3435	0.032	1.6	0.4075	0.09225
13-Aug-87	17.5	51.83	76.83	0.1195	0.3435	0.032	1.6	0.4075	0.09225
14-Aug-87	15.3	49.63	74.63	0.1195	0.3435	0.032	1.6	0.4075	0.09225
15-Aug-87	7.6	41.93	66.93	0.1195	0.3435	0.032	1.6	0.4075	0.09225
16-Aug-87	7.2	41.53	66.53	0.1195	0.3435	0.032	1.6	0.4075	0.09225
17-Aug-87	7.2	41.53	66.53	0.1195	0.3435	0.032	1.6	0.4075	0.09225
18-Aug-87	12.5	46.83	71.83	0.1195	0.3435	0.032	1.6	0.4075	0.09225
19-Aug-87	13.8	31.72	56.72	0.1195	0.3435	0.032	1.6	0.4075	0.09225
20-Aug-87	15.1	33.02	58.02	0.1195	0.3435	0.032	1.6	0.4075	0.09225
21-Aug-87	15.1	33.02	58.02	0.1195	0.3435	0.032	1.6	0.4075	0.09225

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
22-Aug-87	11.9	29.82	54.82	0.1195	0.3435	0.032	1.6	0.4075	0.09225
23-Aug-87	11.6	29.52	54.52	0.1195	0.3435	0.032	1.6	0.4075	0.09225
24-Aug-87	11.3	29.22	54.22	0.1195	0.3435	0.032	1.6	0.4075	0.09225
25-Aug-87	13.1	31.02	56.02	0.1195	0.3435	0.032	1.6	0.4075	0.09225
26-Aug-87	13.8	31.72	56.72	0.1195	0.3435	0.032	1.6	0.4075	0.09225
27-Aug-87	16.6	34.52	59.52	0.1195	0.3435	0.032	1.6	0.4075	0.09225
28-Aug-87	18.9	36.82	61.82	0.1195	0.3435	0.032	1.6	0.4075	0.09225
29-Aug-87	28.9	69.00	94.00	0.1195	0.3435	0.032	1.6	0.4075	0.09225
30-Aug-87	33.2	73.30	98.30	0.1195	0.3435	0.032	1.6	0.4075	0.09225
31-Aug-87	35.5	75.60	100.60	0.1195	0.3435	0.032	1.6	0.4075	0.09225
1-Sep-87	12.6	52.74	77.74	0.1195	0.3435	0.032	1.6	0.4075	0.09225
2-Sep-87	10.8	50.94	75.94	0.1195	0.3435	0.032	1.6	0.4075	0.09225
3-Sep-87	12.6	52.74	77.74	0.1195	0.3435	0.032	1.6	0.4075	0.09225
4-Sep-87	34.6	74.65	99.65	0.1195	0.3435	0.032	1.6	0.4075	0.09225
5-Sep-87	44.4	84.52	109.52	0.1195	0.3435	0.032	1.6	0.4075	0.09225
6-Sep-87	38.1	78.18	103.18	0.1195	0.3435	0.032	1.6	0.4075	0.09225
7-Sep-87	39.3	79.40	104.40	0.1195	0.3435	0.032	1.6	0.4075	0.09225
8-Sep-87	44.4	87.39	112.39	0.1195	0.3435	0.032	1.6	0.4075	0.09225
9-Sep-87	35.7	78.67	103.67	0.1195	0.3435	0.032	1.6	0.4075	0.09225
10-Sep-87	34.6	77.52	102.52	0.1195	0.3435	0.032	1.6	0.4075	0.09225
11-Sep-87	36.9	79.85	104.85	0.085	0.3435	0.032	1	0.4075	0.09225
12-Sep-87	32.3	75.28	100.28	0.076	0.338	0.029	0.8	0.42	0.098
13-Sep-87	34.6	77.52	102.52	0.076	0.269	0.046	0.8	0.405	0.179
14-Sep-87	39.3	82.27	107.27	0.076	0.269	0.046	0.8	0.405	0.179
15-Sep-87	42.0	84.97	109.97	0.076	0.269	0.046	0.8	0.405	0.179
16-Sep-87	43.1	86.07	111.07	0.076	0.269	0.046	0.8	0.405	0.179
17-Sep-87	39.4	82.37	107.37	0.076	0.269	0.046	0.8	0.405	0.179
18-Sep-87	34.6	61.90	86.90	0.076	0.269	0.046	0.8	0.405	0.179
19-Sep-87	42.0	69.35	94.35	0.076	0.269	0.046	0.8	0.405	0.179
20-Sep-87	47.1	74.47	99.47	0.076	0.269	0.046	0.8	0.405	0.179
21-Sep-87	28.1	55.44	80.44	0.076	0.269	0.046	0.8	0.405	0.179
22-Sep-87	27.1	54.44	79.44	0.076	0.269	0.046	0.8	0.405	0.179
23-Sep-87	29.1	56.46	81.46	0.076	0.269	0.046	0.8	0.405	0.179
24-Sep-87	19.1	46.40	71.40	0.076	0.269	0.046	0.8	0.405	0.179
25-Sep-87	13.3	40.62	65.62	0.076	0.269	0.046	0.8	0.405	0.179
26-Sep-87	13.9	41.28	66.28	0.076	0.269	0.046	0.8	0.405	0.179
27-Sep-87	34.6	61.90	86.90	0.076	0.269	0.046	0.8	0.405	0.179
28-Sep-87	43.1	49.60	74.60	0.076	0.269	0.046	0.8	0.405	0.179
29-Sep-87	25.2	31.66	56.66	0.076	0.269	0.046	0.8	0.405	0.179

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
30-Sep-87	34.6	41.05	66.05	0.076	0.269	0.046	0.8	0.405	0.179
1-Oct-87	40.2	46.68	71.68	0.076	0.269	0.046	0.8	0.405	0.179
2-Oct-87	40.2	46.68	71.68	0.076	0.269	0.046	0.8	0.405	0.179
3-Oct-87	40.2	46.68	71.68	0.076	0.269	0.046	0.8	0.405	0.179
4-Oct-87	40.2	46.68	71.68	0.076	0.269	0.046	0.8	0.405	0.179
5-Oct-87	40.2	46.68	71.68	0.076	0.269	0.046	0.8	0.405	0.179
6-Oct-87	40.2	46.68	71.68	0.076	0.269	0.046	0.8	0.405	0.179
7-Oct-87	40.2	46.68	71.68	0.076	0.269	0.046	0.8	0.405	0.179
8-Oct-87	40.2	49.87	74.87	0.076	0.269	0.046	0.8	0.405	0.179
9-Oct-87	40.2	49.87	74.87	0.076	0.269	0.046	0.8	0.405	0.179
10-Oct-87	40.2	49.87	74.87	0.076	0.269	0.046	0.8	0.405	0.179
11-Oct-87	45.8	55.50	80.50	0.067	0.2	0.046	0.6	0.39	0.179
12-Oct-87	44.5	54.15	79.15	0.1085	0.225	0.046	1.3	0.475	0.179
13-Oct-87	44.5	54.15	79.15	0.1085	0.225	0.046	1.3	0.475	0.179
14-Oct-87	44.5	54.15	79.15	0.1085	0.225	0.046	1.3	0.475	0.179
15-Oct-87	44.5	54.15	79.15	0.1085	0.225	0.046	1.3	0.475	0.179
16-Oct-87	44.5	54.15	79.15	0.1085	0.225	0.046	1.3	0.475	0.179
17-Oct-87	44.5	54.15	79.15	0.1085	0.225	0.046	1.3	0.475	0.179
18-Oct-87	44.5	52.97	77.97	0.1085	0.225	0.046	1.3	0.475	0.179
19-Oct-87	44.5	52.97	77.97	0.1085	0.225	0.046	1.3	0.475	0.179
20-Oct-87	44.5	52.97	77.97	0.1085	0.225	0.046	1.3	0.475	0.179
21-Oct-87	44.5	52.97	77.97	0.1085	0.225	0.046	1.3	0.475	0.179
22-Oct-87	44.5	52.97	77.97	0.1085	0.225	0.046	1.3	0.475	0.179
23-Oct-87	44.5	52.97	77.97	0.1085	0.225	0.046	1.3	0.475	0.179
24-Oct-87	44.5	52.97	77.97	0.1085	0.225	0.046	1.3	0.475	0.179
25-Oct-87	44.5	52.97	77.97	0.1085	0.225	0.046	1.3	0.475	0.179
26-Oct-87	44.5	52.97	77.97	0.1085	0.225	0.046	1.3	0.475	0.179
27-Oct-87	44.5	52.97	77.97	0.1085	0.225	0.046	1.3	0.475	0.179
28-Oct-87	44.5	56.75	81.75	0.1085	0.225	0.046	1.3	0.475	0.179
29-Oct-87	44.5	56.75	81.75	0.1085	0.225	0.046	1.3	0.475	0.179
30-Oct-87	44.5	56.75	81.75	0.1085	0.225	0.046	1.3	0.475	0.179
31-Oct-87	44.5	56.75	81.75	0.1085	0.225	0.046	1.3	0.475	0.179
1-Nov-87	44.5	56.75	81.75	0.1085	0.225	0.046	1.3	0.475	0.179
2-Nov-87	43.1	55.40	80.40	0.1085	0.225	0.046	1.3	0.475	0.179
3-Nov-87	34.6	46.85	71.85	0.1085	0.225	0.046	1.3	0.475	0.179
4-Nov-87	34.6	46.85	71.85	0.1085	0.225	0.046	1.3	0.475	0.179
5-Nov-87	47.1	59.42	84.42	0.1085	0.225	0.046	1.3	0.475	0.179
6-Nov-87	34.6	46.85	71.85	0.1085	0.225	0.046	1.3	0.475	0.179
7-Nov-87	34.6	51.87	76.87	0.1085	0.225	0.046	1.3	0.475	0.179

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
8-Nov-87	47.1	64.44	89.44	0.1085	0.225	0.046	1.3	0.475	0.179
9-Nov-87	33.4	50.73	75.73	0.1085	0.225	0.046	1.3	0.475	0.179
10-Nov-87	31.2	48.54	73.54	0.1085	0.225	0.046	1.3	0.475	0.179
11-Nov-87	39.2	56.49	81.49	0.1085	0.225	0.046	1.3	0.475	0.179
12-Nov-87	47.1	64.44	89.44	0.1085	0.225	0.046	1.3	0.475	0.179
13-Nov-87	32.3	49.63	74.63	0.1085	0.225	0.046	1.3	0.475	0.179
14-Nov-87	38.1	55.40	80.40	0.1085	0.225	0.046	1.3	0.475	0.179
15-Nov-87	38.7	56.01	81.01	0.1085	0.225	0.046	1.3	0.475	0.179
16-Nov-87	38.7	56.01	81.01	0.1085	0.225	0.046	1.3	0.475	0.179
17-Nov-87	38.7	52.03	77.03	0.1085	0.225	0.046	1.3	0.475	0.179
18-Nov-87	38.7	52.03	77.03	0.1085	0.225	0.046	1.3	0.475	0.179
19-Nov-87	38.7	52.03	77.03	0.1085	0.225	0.046	1.3	0.475	0.179
20-Nov-87	38.7	52.03	77.03	0.15	0.25	0.046	2	0.56	0.179
21-Nov-87	38.7	52.03	77.03	0.1225	0.26	0.046	1.6	0.55	0.179
22-Nov-87	38.7	52.03	77.03	0.1225	0.26	0.046	1.6	0.55	0.179
23-Nov-87	38.7	52.03	77.03	0.1225	0.26	0.046	1.6	0.55	0.179
24-Nov-87	38.7	52.03	77.03	0.1225	0.26	0.046	1.6	0.55	0.179
25-Nov-87	38.7	52.03	77.03	0.1225	0.26	0.046	1.6	0.55	0.179
26-Nov-87	38.7	52.03	77.03	0.1225	0.26	0.046	1.6	0.55	0.179
27-Nov-87	38.7	50.58	75.58	0.1225	0.26	0.046	1.6	0.55	0.179
28-Nov-87	38.7	50.58	75.58	0.1225	0.26	0.046	1.6	0.55	0.179
29-Nov-87	38.7	50.58	75.58	0.1225	0.26	0.046	1.6	0.55	0.179
30-Nov-87	38.7	50.58	75.58	0.1225	0.26	0.046	1.6	0.55	0.179
1-Dec-87	38.7	50.58	75.58	0.1225	0.26	0.046	1.6	0.55	0.179
2-Dec-87	38.7	50.58	75.58	0.1225	0.26	0.046	1.6	0.55	0.179
3-Dec-87	38.7	50.58	75.58	0.1225	0.26	0.046	1.6	0.55	0.179
4-Dec-87	38.7	50.58	75.58	0.1225	0.26	0.046	1.6	0.55	0.179
5-Dec-87	39.3	51.19	76.19	0.095	0.27	0.046	1.2	0.54	0.179
6-Dec-87	37.9	49.79	74.79	0.081	0.28	0.046	0.88	0.555	0.179
7-Dec-87	37.9	50.71	75.71	0.081	0.28	0.046	0.88	0.555	0.179
8-Dec-87	37.9	50.71	75.71	0.081	0.28	0.046	0.88	0.555	0.179
9-Dec-87	37.9	50.71	75.71	0.081	0.28	0.046	0.88	0.555	0.179
10-Dec-87	36.5	49.31	74.31	0.081	0.28	0.046	0.88	0.555	0.179
11-Dec-87	39.0	51.81	76.81	0.081	0.28	0.046	0.88	0.555	0.179
12-Dec-87	33.9	46.71	71.71	0.081	0.28	0.046	0.88	0.555	0.179
13-Dec-87	30.8	43.61	68.61	0.081	0.28	0.046	0.88	0.555	0.179
14-Dec-87	35.7	48.51	73.51	0.081	0.28	0.046	0.88	0.555	0.179
15-Dec-87	38.0	50.81	75.81	0.081	0.28	0.046	0.88	0.555	0.179
16-Dec-87	24.2	37.01	62.01	0.081	0.28	0.046	0.88	0.555	0.179

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
17-Dec-87	22.4	34.64	59.64	0.081	0.28	0.046	0.88	0.555	0.179
18-Dec-87	20.7	32.94	57.94	0.081	0.28	0.046	0.88	0.555	0.179
19-Dec-87	24.2	36.44	61.44	0.081	0.28	0.046	0.88	0.555	0.179
20-Dec-87	28.8	41.04	66.04	0.081	0.28	0.046	0.88	0.555	0.179
21-Dec-87	41.6	53.84	78.84	0.081	0.28	0.046	0.88	0.555	0.179
22-Dec-87	40.6	52.84	77.84	0.081	0.28	0.046	0.88	0.555	0.179
23-Dec-87	36.5	48.74	73.74	0.081	0.28	0.046	0.88	0.555	0.179
24-Dec-87	30.1	42.34	67.34	0.081	0.28	0.046	0.88	0.555	0.179
25-Dec-87	26.1	38.34	63.34	0.081	0.28	0.046	0.88	0.555	0.179
26-Dec-87	22.4	34.64	59.64	0.081	0.28	0.046	0.88	0.555	0.179
27-Dec-87	16.0	27.66	52.66	0.081	0.28	0.046	0.88	0.555	0.179
28-Dec-87	24.2	35.86	60.86	0.081	0.28	0.046	0.88	0.555	0.179
29-Dec-87	26.8	38.46	63.46	0.081	0.28	0.046	0.88	0.555	0.179
30-Dec-87	32.3	43.96	68.96	0.081	0.28	0.046	0.88	0.555	0.179
31-Dec-87	39.0	50.66	75.66	0.081	0.28	0.046	0.88	0.555	0.179
1-Jan-88	45.8	58.05	83.05	0.081	0.28	0.046	0.88	0.555	0.179
2-Jan-88	37.4	49.69	74.69	0.081	0.28	0.046	0.88	0.555	0.179
3-Jan-88	41.4	53.74	78.74	0.081	0.28	0.046	0.88	0.555	0.179
4-Jan-88	34.3	46.62	71.62	0.081	0.28	0.046	0.88	0.555	0.179
5-Jan-88	29.3	41.64	66.64	0.081	0.28	0.046	0.88	0.555	0.179
6-Jan-88	39.0	51.29	76.29	0.081	0.28	0.046	0.88	0.555	0.179
7-Jan-88	40.6	52.92	77.92	0.067	0.28	0.063	0.56	0.555	0.26
8-Jan-88	32.9	45.15	70.15	0.1185	0.28	0.0915	1.28	0.555	0.28
9-Jan-88	34.3	46.62	71.62	0.1185	0.28	0.0915	1.28	0.555	0.28
10-Jan-88	31.4	43.72	68.72	0.1185	0.28	0.0915	1.28	0.555	0.28
11-Jan-88	28.7	40.95	65.95	0.1185	0.28	0.0915	1.28	0.555	0.28
12-Jan-88	27.3	39.64	64.64	0.1185	0.28	0.0915	1.28	0.555	0.28
13-Jan-88	39.0	51.29	76.29	0.1185	0.28	0.0915	1.28	0.555	0.28
14-Jan-88	39.0	51.29	76.29	0.1185	0.28	0.0915	1.28	0.555	0.28
15-Jan-88	36.6	48.90	73.90	0.1185	0.28	0.0915	1.28	0.555	0.28
16-Jan-88	32.9	45.15	70.15	0.1185	0.28	0.0915	1.28	0.555	0.28
17-Jan-88	26.1	38.35	63.35	0.1185	0.28	0.0915	1.28	0.555	0.28
18-Jan-88	30.7	43.02	68.02	0.1185	0.28	0.0915	1.28	0.555	0.28
19-Jan-88	35.1	47.37	72.37	0.1185	0.28	0.0915	1.28	0.555	0.28
20-Jan-88	35.1	47.37	72.37	0.1185	0.28	0.0915	1.28	0.555	0.28
21-Jan-88	37.4	49.69	74.69	0.1185	0.28	0.0915	1.28	0.555	0.28
22-Jan-88	24.8	37.10	62.10	0.1185	0.28	0.0915	1.28	0.555	0.28
23-Jan-88	35.8	48.14	73.14	0.1185	0.28	0.0915	1.28	0.555	0.28
24-Jan-88	38.2	50.49	75.49	0.1185	0.28	0.0915	1.28	0.555	0.28

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
25-Jan-88	32.9	45.15	70.15	0.1185	0.28	0.0915	1.28	0.555	0.28
26-Jan-88	26.1	38.35	63.35	0.1185	0.28	0.0915	1.28	0.555	0.28
27-Jan-88	26.1	38.35	63.35	0.1185	0.28	0.0915	1.28	0.555	0.28
28-Jan-88	25.4	37.72	62.72	0.1185	0.28	0.0915	1.28	0.555	0.28
29-Jan-88	34.3	46.62	71.62	0.1185	0.28	0.0915	1.28	0.555	0.28
30-Jan-88	30.0	42.32	67.32	0.1185	0.28	0.0915	1.28	0.555	0.28
31-Jan-88	32.1	39.43	64.43	0.1185	0.28	0.0915	1.28	0.555	0.28
1-Feb-88	37.0	44.30	69.30	0.1185	0.29	0.0915	1.28	0.57	0.28
2-Feb-88	36.0	43.30	68.30	0.1185	0.27	0.0915	1.28	0.423	0.28
3-Feb-88	25.0	32.30	57.30	0.1185	0.27	0.0915	1.28	0.423	0.28
4-Feb-88	22.0	29.30	54.30	0.1185	0.27	0.0915	1.28	0.423	0.28
5-Feb-88	25.0	32.30	57.30	0.1185	0.27	0.0915	1.28	0.423	0.28
6-Feb-88	24.0	31.30	56.30	0.1185	0.27	0.0915	1.28	0.423	0.28
7-Feb-88	24.0	31.30	56.30	0.1185	0.27	0.0915	1.28	0.423	0.28
8-Feb-88	31.0	38.30	63.30	0.1185	0.27	0.0915	1.28	0.423	0.28
9-Feb-88	29.0	36.30	61.30	0.1185	0.27	0.0915	1.28	0.423	0.28
10-Feb-88	25.0	31.41	56.41	0.1185	0.27	0.0915	1.28	0.423	0.28
11-Feb-88	25.0	31.41	56.41	0.17	0.27	0.0915	2	0.423	0.28
12-Feb-88	30.0	36.41	61.41	0.12	0.27	0.0915	1.415	0.423	0.28
13-Feb-88	35.0	41.41	66.41	0.12	0.27	0.0915	1.415	0.423	0.28
14-Feb-88	37.0	43.41	68.41	0.12	0.27	0.0915	1.415	0.423	0.28
15-Feb-88	39.0	45.41	70.41	0.12	0.27	0.0915	1.415	0.423	0.28
16-Feb-88	37.0	43.41	68.41	0.12	0.27	0.0915	1.415	0.423	0.28
17-Feb-88	36.0	42.41	67.41	0.12	0.27	0.0915	1.415	0.423	0.28
18-Feb-88	31.0	37.41	62.41	0.12	0.27	0.0915	1.415	0.423	0.28
19-Feb-88	36.0	42.41	67.41	0.12	0.27	0.0915	1.415	0.423	0.28
20-Feb-88	34.0	40.66	65.66	0.12	0.27	0.0915	1.415	0.423	0.28
21-Feb-88	30.0	36.66	61.66	0.12	0.27	0.0915	1.415	0.423	0.28
22-Feb-88	41.0	47.66	72.66	0.12	0.27	0.0915	1.415	0.423	0.28
23-Feb-88	36.0	42.66	67.66	0.12	0.27	0.0915	1.415	0.423	0.28
24-Feb-88	26.0	32.66	57.66	0.12	0.27	0.0915	1.415	0.423	0.28
25-Feb-88	22.0	28.66	53.66	0.12	0.27	0.12	1.415	0.423	0.3
26-Feb-88	25.0	31.66	56.66	0.12	0.27	0.115	1.415	0.423	0.2975
27-Feb-88	32.0	38.66	63.66	0.12	0.27	0.115	1.415	0.423	0.2975
28-Feb-88	37.0	43.66	68.66	0.12	0.27	0.115	1.415	0.423	0.2975
29-Feb-88	33.0	39.66	64.66	0.12	0.27	0.115	1.415	0.423	0.2975
1-Mar-88	37.4	35.87	60.87	0.12	0.27	0.115	1.415	0.423	0.2975
2-Mar-88	39.0	37.47	62.47	0.12	0.27	0.115	1.415	0.423	0.2975
3-Mar-88	30.7	29.20	54.20	0.12	0.27	0.115	1.415	0.423	0.2975

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
4-Mar-88	28.0	26.47	51.47	0.12	0.27	0.115	1.415	0.423	0.2975
5-Mar-88	35.1	33.55	58.55	0.12	0.27	0.115	1.415	0.423	0.2975
6-Mar-88	42.3	40.77	65.77	0.12	0.27	0.115	1.415	0.423	0.2975
7-Mar-88	30.0	28.50	53.50	0.12	0.27	0.115	1.415	0.423	0.2975
8-Mar-88	35.8	34.32	59.32	0.12	0.27	0.115	1.415	0.423	0.2975
9-Mar-88	32.9	31.33	56.33	0.12	0.27	0.115	1.415	0.423	0.2975
10-Mar-88	28.7	27.13	52.13	0.12	0.27	0.115	1.415	0.423	0.2975
11-Mar-88	39.8	38.27	63.27	0.12	0.27	0.115	1.415	0.423	0.2975
12-Mar-88	26.7	25.17	50.17	0.12	0.27	0.115	1.415	0.423	0.2975
13-Mar-88	29.3	27.82	52.82	0.07	0.27	0.115	0.83	0.423	0.2975
14-Mar-88	31.4	29.90	54.90	0.08	0.27	0.115	0.769	0.423	0.2975
15-Mar-88	29.3	27.82	52.82	0.08	0.27	0.115	0.769	0.423	0.2975
16-Mar-88	29.3	27.82	52.82	0.08	0.27	0.115	0.769	0.423	0.2975
17-Mar-88	24.8	23.28	48.28	0.08	0.27	0.115	0.769	0.423	0.2975
18-Mar-88	25.4	23.90	48.90	0.08	0.27	0.115	0.769	0.423	0.2975
19-Mar-88	30.0	28.50	53.50	0.08	0.27	0.115	0.769	0.423	0.2975
20-Mar-88	24.8	23.28	48.28	0.08	0.27	0.115	0.769	0.423	0.2975
21-Mar-88	25.4	23.90	48.90	0.08	0.27	0.115	0.769	0.423	0.2975
22-Mar-88	35.1	33.55	58.55	0.08	0.27	0.115	0.769	0.423	0.2975
23-Mar-88	30.0	28.50	53.50	0.08	0.27	0.115	0.769	0.423	0.2975
24-Mar-88	34.3	32.80	57.80	0.08	0.27	0.115	0.769	0.423	0.2975
25-Mar-88	39.8	38.27	63.27	0.08	0.27	0.115	0.769	0.423	0.2975
26-Mar-88	32.1	30.62	55.62	0.08	0.27	0.115	0.769	0.423	0.2975
27-Mar-88	30.0	28.50	53.50	0.08	0.27	0.115	0.769	0.423	0.2975
28-Mar-88	30.0	28.50	53.50	0.08	0.27	0.115	0.769	0.423	0.2975
29-Mar-88	35.8	34.32	59.32	0.08	0.27	0.115	0.769	0.423	0.2975
30-Mar-88	30.7	29.20	54.20	0.08	0.27	0.115	0.769	0.423	0.2975
31-Mar-88	28.0	25.02	50.02	0.08	0.27	0.115	0.769	0.423	0.2975
1-Apr-88	28.7	25.69	50.69	0.08	0.27	0.115	0.769	0.423	0.2975
2-Apr-88	28.7	25.69	50.69	0.08	0.27	0.115	0.769	0.423	0.2975
3-Apr-88	39.0	36.02	61.02	0.08	0.27	0.115	0.769	0.423	0.2975
4-Apr-88	44.0	41.04	66.04	0.08	0.27	0.115	0.769	0.423	0.2975
5-Apr-88	40.6	37.66	62.66	0.08	0.27	0.115	0.769	0.423	0.2975
6-Apr-88	42.3	39.32	64.32	0.08	0.27	0.115	0.769	0.423	0.2975
7-Apr-88	38.2	35.22	60.22	0.08	0.27	0.115	0.769	0.423	0.2975
8-Apr-88	34.3	31.36	56.36	0.08	0.27	0.115	0.769	0.423	0.2975
9-Apr-88	26.7	23.72	48.72	0.09	0.27	0.115	0.708	0.423	0.2975
10-Apr-88	32.9	29.22	54.22	0.645	0.27	0.115	5.179	0.423	0.2975
11-Apr-88	32.1	28.50	53.50	0.645	0.27	0.115	5.179	0.423	0.2975

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
12-Apr-88	21.8	18.20	43.20	0.645	0.27	0.115	5.179	0.423	0.2975
13-Apr-88	24.8	21.17	46.17	0.645	0.27	0.115	5.179	0.423	0.2975
14-Apr-88	32.1	28.50	53.50	0.645	0.27	0.115	5.179	0.423	0.2975
15-Apr-88	35.8	32.20	57.20	0.645	0.27	0.115	5.179	0.423	0.2975
16-Apr-88	26.1	22.42	47.42	0.645	0.27	0.115	5.179	0.423	0.2975
17-Apr-88	22.4	18.79	43.79	0.645	0.27	0.11	5.179	0.423	0.295
18-Apr-88	24.8	21.17	46.17	0.645	0.27	0.075	5.179	0.423	0.1945
19-Apr-88	23.6	19.95	44.95	0.645	0.27	0.075	5.179	0.423	0.1945
20-Apr-88	24.8	22.32	47.32	0.645	0.27	0.075	5.179	0.423	0.1945
21-Apr-88	20.2	17.69	42.69	0.645	0.27	0.075	5.179	0.423	0.1945
22-Apr-88	24.2	21.70	46.70	0.645	0.27	0.075	5.179	0.423	0.1945
23-Apr-88	26.7	24.20	49.20	0.645	0.27	0.075	5.179	0.423	0.1945
24-Apr-88	24.2	21.70	46.70	0.645	0.27	0.075	5.179	0.423	0.1945
25-Apr-88	28.0	25.50	50.50	0.645	0.27	0.075	5.179	0.423	0.1945
26-Apr-88	39.0	36.50	61.50	0.645	0.27	0.075	5.179	0.423	0.1945
27-Apr-88	47.5	45.05	70.05	0.645	0.27	0.075	5.179	0.423	0.1945
28-Apr-88	67.8	65.30	90.30	0.645	0.27	0.075	5.179	0.423	0.1945
29-Apr-88	85.9	83.39	108.39	0.645	0.27	0.075	5.179	0.423	0.1945
30-Apr-88	106.6	268.85	293.85	0.645	0.27	0.075	5.179	0.423	0.1945
1-May-88	145.3	307.61	332.61	0.645	0.27	0.075	5.179	0.423	0.1945
2-May-88	117.1	279.41	304.41	0.645	0.27	0.075	5.179	0.423	0.1945
3-May-88	100.8	263.06	288.06	0.645	0.27	0.075	5.179	0.423	0.1945
4-May-88	112.5	274.81	299.81	0.645	0.27	0.075	5.179	0.423	0.1945
5-May-88	118.7	280.98	305.98	0.645	0.27	0.075	5.179	0.423	0.1945
6-May-88	133.3	295.56	320.56	0.645	0.27	0.075	5.179	0.423	0.1945
7-May-88	177.2	339.53	364.53	1.2	0.27	0.075	9.65	0.423	0.1945
8-May-88	148.9	311.18	336.18	0.75	0.27	0.075	6.505	0.423	0.1945
9-May-88	121.8	284.13	309.13	0.75	0.27	0.075	6.505	0.423	0.1945
10-May-88	106.6	219.13	244.13	0.75	0.27	0.075	6.505	0.423	0.1945
11-May-88	106.6	219.13	244.13	0.75	0.27	0.075	6.505	0.423	0.1945
12-May-88	105.1	217.67	242.67	0.75	0.27	0.075	6.505	0.423	0.1945
13-May-88	103.6	216.22	241.22	0.75	0.27	0.075	6.505	0.423	0.1945
14-May-88	91.1	203.70	228.70	0.75	0.27	0.075	6.505	0.423	0.1945
15-May-88	93.8	206.40	231.40	0.75	0.27	0.075	6.505	0.423	0.1945
16-May-88	91.1	203.70	228.70	0.75	0.27	0.075	6.505	0.423	0.1945
17-May-88	92.3	204.92	229.92	0.75	0.27	0.075	6.505	0.423	0.1945
18-May-88	100.8	213.35	238.35	0.75	0.27	0.075	6.505	0.423	0.1945
19-May-88	102.2	214.78	239.78	0.75	0.27	0.075	6.505	0.423	0.1945
20-May-88	109.5	175.67	200.67	0.75	0.27	0.075	6.505	0.423	0.1945

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
21-May-88	118.7	184.85	209.85	0.75	0.27	0.075	6.505	0.423	0.1945
22-May-88	112.5	178.68	203.68	0.75	0.27	0.075	6.505	0.423	0.1945
23-May-88	102.2	168.37	193.37	0.75	0.27	0.075	6.505	0.423	0.1945
24-May-88	96.6	162.73	187.73	0.75	0.27	0.075	6.505	0.423	0.1945
25-May-88	95.2	161.35	186.35	0.75	0.27	0.075	6.505	0.423	0.1945
26-May-88	93.8	159.98	184.98	0.75	0.27	0.075	6.505	0.423	0.1945
27-May-88	84.6	150.75	175.75	0.75	0.27	0.075	6.505	0.423	0.1945
28-May-88	95.2	161.35	186.35	0.75	0.27	0.075	6.505	0.423	0.1945
29-May-88	85.9	152.03	177.03	0.75	0.27	0.075	6.505	0.423	0.1945
30-May-88	82.2	157.88	182.88	0.75	0.27	0.075	6.505	0.423	0.1945
31-May-88	75.9	151.58	176.58	0.75	0.27	0.075	6.505	0.423	0.1945
1-Jun-88	58.2	133.83	158.83	0.75	0.27	0.075	6.505	0.423	0.1945
2-Jun-88	45.8	121.43	146.43	0.75	0.27	0.075	6.505	0.423	0.1945
3-Jun-88	43.1	118.81	143.81	0.75	0.27	0.075	6.505	0.423	0.1945
4-Jun-88	39.0	114.66	139.66	0.75	0.27	0.075	6.505	0.423	0.1945
5-Jun-88	37.4	113.06	138.06	0.75	0.27	0.075	6.505	0.423	0.1945
6-Jun-88	44.9	120.54	145.54	0.75	0.27	0.075	6.505	0.423	0.1945
7-Jun-88	67.8	143.46	168.46	0.75	0.27	0.075	6.505	0.423	0.1945
8-Jun-88	49.4	125.04	150.04	0.75	0.27	0.075	6.505	0.423	0.1945
9-Jun-88	44.9	122.70	147.70	0.75	0.27	0.075	6.505	0.423	0.1945
10-Jun-88	44.0	121.83	146.83	0.75	0.27	0.075	6.505	0.423	0.1945
11-Jun-88	46.6	124.47	149.47	0.75	0.27	0.075	6.505	0.423	0.1945
12-Jun-88	52.2	130.03	155.03	0.75	0.27	0.075	6.505	0.423	0.1945
13-Jun-88	46.6	124.47	149.47	0.75	0.27	0.075	6.505	0.423	0.1945
14-Jun-88	44.0	121.83	146.83	0.75	0.27	0.075	6.505	0.423	0.1945
15-Jun-88	43.1	120.97	145.97	0.75	0.27	0.075	6.505	0.423	0.1945
16-Jun-88	41.4	119.27	144.27	0.75	0.25	0.04	6.505	0.276	0.094
17-Jun-88	42.3	120.12	145.12	0.75	0.325	0.025	6.505	0.319	0.1185
18-Jun-88	41.4	119.27	144.27	0.3	0.325	0.025	3.36	0.319	0.1185
19-Jun-88	41.4	93.24	118.24	0.3	0.325	0.025	3.18	0.319	0.1185
20-Jun-88	38.2	89.99	114.99	0.3	0.325	0.025	3.18	0.319	0.1185
21-Jun-88	37.4	89.19	114.19	0.3	0.325	0.025	3.18	0.319	0.1185
22-Jun-88	38.2	89.99	114.99	0.3	0.325	0.025	3.18	0.319	0.1185
23-Jun-88	43.1	94.94	119.94	0.3	0.325	0.025	3.18	0.319	0.1185
24-Jun-88	52.2	104.01	129.01	0.3	0.325	0.025	3.18	0.319	0.1185
25-Jun-88	51.3	103.06	128.06	0.3	0.325	0.025	3.18	0.319	0.1185
26-Jun-88	39.0	90.79	115.79	0.3	0.325	0.025	3.18	0.319	0.1185
27-Jun-88	39.0	90.79	115.79	0.3	0.325	0.025	3.18	0.319	0.1185
28-Jun-88	39.8	91.59	116.59	0.3	0.325	0.025	3.18	0.319	0.1185

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
29-Jun-88	41.4	99.61	124.61	0.3	0.325	0.025	3.18	0.319	0.1185
30-Jun-88	40.6	98.80	123.80	0.3	0.325	0.025	3.18	0.319	0.1185
1-Jul-88	38.2	96.36	121.36	0.3	0.325	0.025	3.18	0.319	0.1185
2-Jul-88	44.9	103.05	128.05	0.3	0.325	0.025	3.18	0.319	0.1185
3-Jul-88	38.2	96.36	121.36	0.3	0.325	0.025	3	0.319	0.1185
4-Jul-88	44.0	102.18	127.18	0.325	0.325	0.025	3.85	0.319	0.1185
5-Jul-88	61.3	119.45	144.45	0.325	0.325	0.025	3.85	0.319	0.1185
6-Jul-88	73.5	131.71	156.71	0.325	0.325	0.025	3.85	0.319	0.1185
7-Jul-88	85.9	144.05	169.05	0.325	0.325	0.025	3.85	0.319	0.1185
8-Jul-88	68.9	127.10	152.10	0.325	0.325	0.025	3.85	0.319	0.1185
9-Jul-88	61.3	114.40	139.40	0.325	0.325	0.025	3.85	0.319	0.1185
10-Jul-88	58.2	111.29	136.29	0.325	0.325	0.025	3.85	0.319	0.1185
11-Jul-88	57.1	110.27	135.27	0.325	0.325	0.025	3.85	0.319	0.1185
12-Jul-88	56.1	109.25	134.25	0.325	0.325	0.025	3.85	0.319	0.1185
13-Jul-88	54.1	107.27	132.27	0.325	0.325	0.025	3.85	0.319	0.1185
14-Jul-88	53.2	106.30	131.30	0.325	0.325	0.025	3.85	0.319	0.1185
15-Jul-88	52.2	105.34	130.34	0.325	0.325	0.025	3.85	0.319	0.1185
16-Jul-88	52.2	105.34	130.34	0.325	0.325	0.025	3.85	0.319	0.1185
17-Jul-88	52.2	105.34	130.34	0.325	0.325	0.025	3.85	0.319	0.1185
18-Jul-88	52.2	105.34	130.34	0.325	0.325	0.025	3.85	0.319	0.1185
19-Jul-88	50.3	99.74	124.74	0.325	0.325	0.025	3.85	0.319	0.1185
20-Jul-88	51.3	100.69	125.69	0.325	0.325	0.025	3.85	0.319	0.1185
21-Jul-88	50.3	99.74	124.74	0.325	0.325	0.025	3.85	0.319	0.1185
22-Jul-88	50.3	99.74	124.74	0.325	0.325	0.025	3.85	0.319	0.1185
23-Jul-88	58.2	107.59	132.59	0.325	0.325	0.025	3.85	0.319	0.1185
24-Jul-88	48.5	97.89	122.89	0.325	0.325	0.025	3.85	0.319	0.1185
25-Jul-88	45.8	95.19	120.19	0.325	0.325	0.025	3.85	0.319	0.1185
26-Jul-88	46.6	96.08	121.08	0.325	0.325	0.025	3.85	0.319	0.1185
27-Jul-88	46.6	96.08	121.08	0.325	0.325	0.025	3.85	0.319	0.1185
28-Jul-88	44.4	93.88	118.88	0.325	0.325	0.025	3.85	0.319	0.1185
29-Jul-88	44.9	95.69	120.69	0.325	0.325	0.025	3.85	0.319	0.1185
30-Jul-88	45.8	96.57	121.57	0.325	0.325	0.025	3.85	0.319	0.1185
31-Jul-88	45.8	96.57	121.57	0.325	0.325	0.025	3.85	0.319	0.1185
1-Aug-88	13.4	64.22	89.22	0.325	0.325	0.01	3.85	0.319	0.143
2-Aug-88	12.2	62.97	87.97	0.325	0.325	0.02	3.85	0.319	0.1015
3-Aug-88	11.8	62.57	87.57	0.325	0.325	0.02	3.85	0.319	0.1015
4-Aug-88	12.2	62.97	87.97	0.325	0.325	0.02	3.85	0.319	0.1015
5-Aug-88	12.6	63.37	88.37	0.325	0.325	0.02	3.85	0.319	0.1015
6-Aug-88	12.2	62.97	87.97	0.325	0.325	0.02	3.85	0.319	0.1015

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
7-Aug-88	11.8	62.57	87.57	0.325	0.325	0.02	3.85	0.319	0.1015
8-Aug-88	11.4	63.46	88.46	0.325	0.325	0.02	3.85	0.319	0.1015
9-Aug-88	12.2	64.25	89.25	0.325	0.325	0.02	3.85	0.319	0.1015
10-Aug-88	12.2	64.25	89.25	0.325	0.325	0.02	3.85	0.319	0.1015
11-Aug-88	11.4	63.46	88.46	0.325	0.325	0.02	3.85	0.319	0.1015
12-Aug-88	11.4	63.46	88.46	0.325	0.325	0.02	3.85	0.319	0.1015
13-Aug-88	11.4	63.46	88.46	0.35	0.4	0.02	4.7	0.362	0.1015
14-Aug-88	11.4	63.46	88.46	0.3	0.35	0.02	3.85	0.376	0.1015
15-Aug-88	11.0	63.08	88.08	0.3	0.35	0.02	3.85	0.376	0.1015
16-Aug-88	10.6	62.70	87.70	0.3	0.35	0.02	3.85	0.376	0.1015
17-Aug-88	10.2	62.33	87.33	0.3	0.35	0.02	3.85	0.376	0.1015
18-Aug-88	9.9	28.07	53.07	0.3	0.35	0.02	3.85	0.376	0.1015
19-Aug-88	10.1	28.26	53.26	0.3	0.35	0.02	3.85	0.376	0.1015
20-Aug-88	14.3	32.46	57.46	0.3	0.35	0.02	3.85	0.376	0.1015
21-Aug-88	41.4	59.62	84.62	0.3	0.35	0.02	3.85	0.376	0.1015
22-Aug-88	99.4	117.54	142.54	0.3	0.35	0.02	3.85	0.376	0.1015
23-Aug-88	92.5	110.66	135.66	0.3	0.35	0.02	3.85	0.376	0.1015
24-Aug-88	99.4	117.54	142.54	0.3	0.35	0.02	3.85	0.376	0.1015
25-Aug-88	57.1	75.32	100.32	0.3	0.35	0.02	3.85	0.376	0.1015
26-Aug-88	40.6	58.81	83.81	0.3	0.35	0.02	3.85	0.376	0.1015
27-Aug-88	55.7	73.84	98.84	0.3	0.35	0.02	3.85	0.376	0.1015
28-Aug-88	37.4	73.93	98.93	0.3	0.35	0.03	3.85	0.376	0.06
29-Aug-88	37.4	73.93	98.93	0.3	0.35	0.07	3.85	0.376	0.1695
30-Aug-88	36.6	73.15	98.15	0.3	0.3	0.07	3.85	0.39	0.1695
31-Aug-88	38.2	74.73	99.73	0.3	0.3	0.07	3.85	0.42	0.1695
1-Sep-88	67.8	104.33	129.33	0.3	0.3	0.07	3.85	0.42	0.1695
2-Sep-88	71.2	107.75	132.75	0.3	0.3	0.07	3.85	0.42	0.1695
3-Sep-88	79.6	116.10	141.10	0.3	0.3	0.07	3.85	0.42	0.1695
4-Sep-88	82.1	118.60	143.60	0.3	0.3	0.07	3.85	0.42	0.1695
5-Sep-88	80.8	117.35	142.35	0.3	0.3	0.07	3.85	0.42	0.1695
6-Sep-88	85.9	122.42	147.42	0.3	0.3	0.07	3.85	0.42	0.1695
7-Sep-88	79.6	114.53	139.53	0.25	0.3	0.07	3	0.45	0.1695
8-Sep-88	82.1	117.03	142.03	0.185	0.3	0.07	2.025	0.475	0.1695
9-Sep-88	73.5	108.51	133.51	0.185	0.3	0.07	2.025	0.475	0.1695
10-Sep-88	68.9	103.90	128.90	0.185	0.3	0.07	2.025	0.475	0.1695
11-Sep-88	71.2	106.18	131.18	0.185	0.3	0.07	2.025	0.475	0.1695
12-Sep-88	85.9	120.85	145.85	0.185	0.3	0.07	2.025	0.475	0.1695
13-Sep-88	75.9	110.88	135.88	0.185	0.3	0.07	2.025	0.475	0.1695
14-Sep-88	72.4	107.35	132.35	0.185	0.3	0.07	2.025	0.475	0.1695

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
15-Sep-88	57.1	92.11	117.11	0.185	0.3	0.07	2.025	0.475	0.1695
16-Sep-88	39.0	73.96	98.96	0.185	0.3	0.07	2.025	0.475	0.1695
17-Sep-88	31.4	66.40	91.40	0.185	0.3	0.07	2.025	0.475	0.1695
18-Sep-88	31.4	66.40	91.40	0.185	0.3	0.07	2.025	0.475	0.1695
19-Sep-88	34.3	69.30	94.30	0.185	0.3	0.07	2.025	0.475	0.1695
20-Sep-88	32.9	67.83	92.83	0.185	0.3	0.07	2.025	0.475	0.1695
21-Sep-88	36.6	71.58	96.58	0.185	0.3	0.07	2.025	0.475	0.1695
22-Sep-88	41.4	76.41	101.41	0.185	0.3	0.07	2.025	0.475	0.1695
23-Sep-88	37.4	72.36	97.36	0.185	0.3	0.07	2.025	0.475	0.1695
24-Sep-88	39.0	73.96	98.96	0.185	0.3	0.07	2.025	0.475	0.1695
25-Sep-88	43.1	78.11	103.11	0.185	0.3	0.07	2.025	0.475	0.1695
26-Sep-88	39.0	73.96	98.96	0.185	0.3	0.07	2.025	0.475	0.1695
27-Sep-88	47.5	64.07	89.07	0.185	0.3	0.07	2.025	0.475	0.1695
28-Sep-88	43.1	59.67	84.67	0.185	0.3	0.07	2.025	0.475	0.1695
29-Sep-88	43.1	59.67	84.67	0.185	0.3	0.07	2.025	0.475	0.1695
30-Sep-88	41.4	57.97	82.97	0.185	0.3	0.07	2.025	0.475	0.1695
1-Oct-88	39.0	55.52	80.52	0.185	0.3	0.07	2.025	0.475	0.1695
2-Oct-88	40.6	57.16	82.16	0.185	0.3	0.07	2.025	0.475	0.1695
3-Oct-88	40.6	57.16	82.16	0.185	0.3	0.07	2.025	0.475	0.1695
4-Oct-88	38.2	54.72	79.72	0.185	0.3	0.07	2.025	0.475	0.1695
5-Oct-88	40.6	57.16	82.16	0.185	0.3	0.07	2.025	0.475	0.1695
6-Oct-88	44.9	61.41	86.41	0.185	0.3	0.07	2.025	0.475	0.1695
7-Oct-88	49.4	63.55	88.55	0.185	0.3	0.07	2.025	0.475	0.1695
8-Oct-88	49.4	63.55	88.55	0.185	0.3	0.07	2.025	0.5	0.1695
9-Oct-88	45.8	59.94	84.94	0.185	0.275	0.07	2.025	0.642	0.1695
10-Oct-88	43.1	57.32	82.32	0.185	0.275	0.07	2.025	0.642	0.1695
11-Oct-88	44.0	58.19	83.19	0.185	0.275	0.07	2.025	0.642	0.1695
12-Oct-88	46.6	60.82	85.82	0.185	0.275	0.07	2.025	0.642	0.1695
13-Oct-88	41.4	55.62	80.62	0.185	0.275	0.07	2.025	0.642	0.1695
14-Oct-88	40.6	54.80	79.80	0.185	0.275	0.07	2.025	0.642	0.1695
15-Oct-88	40.6	54.80	79.80	0.185	0.275	0.07	2.025	0.642	0.1695
16-Oct-88	44.0	58.19	83.19	0.185	0.275	0.07	2.025	0.642	0.1695
17-Oct-88	39.0	49.52	74.52	0.185	0.275	0.07	2.025	0.642	0.1695
18-Oct-88	39.0	49.52	74.52	0.185	0.275	0.07	2.025	0.642	0.1695
19-Oct-88	38.2	48.72	73.72	0.185	0.275	0.07	2.025	0.642	0.1695
20-Oct-88	43.1	53.67	78.67	0.12	0.275	0.07	1.05	0.642	0.1695
21-Oct-88	43.1	53.67	78.67	0.13	0.275	0.07	1.235	0.642	0.1695
22-Oct-88	42.3	52.82	77.82	0.13	0.275	0.07	1.235	0.642	0.1695
23-Oct-88	45.8	56.29	81.29	0.13	0.275	0.07	1.235	0.642	0.1695

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
24-Oct-88	47.5	58.07	83.07	0.13	0.275	0.07	1.235	0.642	0.1695
25-Oct-88	39.0	49.52	74.52	0.13	0.275	0.07	1.235	0.642	0.1695
26-Oct-88	39.0	49.52	74.52	0.13	0.275	0.07	1.235	0.642	0.1695
27-Oct-88	37.4	49.49	74.49	0.13	0.275	0.07	1.235	0.642	0.1695
28-Oct-88	27.3	39.44	64.44	0.13	0.275	0.07	1.235	0.642	0.1695
29-Oct-88	28.0	40.09	65.09	0.13	0.275	0.07	1.235	0.642	0.1695
30-Oct-88	31.4	43.52	68.52	0.13	0.275	0.07	1.235	0.642	0.1695
31-Oct-88	38.2	50.29	75.29	0.13	0.275	0.07	1.235	0.642	0.1695
1-Nov-88	37.4	49.49	74.49	0.13	0.275	0.07	1.235	0.642	0.1695
2-Nov-88	37.4	49.49	74.49	0.13	0.275	0.07	1.235	0.642	0.1695
3-Nov-88	22.4	34.52	59.52	0.13	0.275	0.07	1.235	0.642	0.1695
4-Nov-88	38.2	50.29	75.29	0.13	0.275	0.07	1.235	0.642	0.1695
5-Nov-88	44.9	56.97	81.97	0.13	0.275	0.07	1.235	0.642	0.1695
6-Nov-88	48.5	61.79	86.79	0.13	0.275	0.07	1.235	0.642	0.1695
7-Nov-88	39.8	53.12	78.12	0.13	0.275	0.07	1.235	0.642	0.1695
8-Nov-88	43.1	56.47	81.47	0.13	0.275	0.07	1.235	0.642	0.1695
9-Nov-88	44.0	57.34	82.34	0.13	0.275	0.07	1.235	0.642	0.1695
10-Nov-88	37.4	50.72	75.72	0.13	0.275	0.07	1.235	0.642	0.1695
11-Nov-88	30.0	43.36	68.36	0.13	0.275	0.07	1.235	0.642	0.1695
12-Nov-88	31.4	44.76	69.76	0.13	0.275	0.07	1.235	0.642	0.1695
13-Nov-88	28.0	41.32	66.32	0.13	0.275	0.07	1.235	0.642	0.1695
14-Nov-88	26.7	40.02	65.02	0.13	0.275	0.07	1.235	0.642	0.1695
15-Nov-88	27.3	40.67	65.67	0.13	0.275	0.07	1.235	0.642	0.1695
16-Nov-88	28.0	40.99	65.99	0.13	0.275	0.07	1.235	0.642	0.1695
17-Nov-88	30.7	43.72	68.72	0.13	0.275	0.07	1.235	0.642	0.1695
18-Nov-88	30.7	43.72	68.72	0.13	0.275	0.07	1.235	0.642	0.1695
19-Nov-88	25.4	38.42	63.42	0.14	0.275	0.07	1.42	0.642	0.1695
20-Nov-88	26.7	39.69	64.69	0.11	0.25	0.07	1.0575	0.784	0.1695
21-Nov-88	27.3	40.34	65.34	0.11	0.225	0.07	1.0575	0.724	0.1695
22-Nov-88	39.0	51.99	76.99	0.11	0.225	0.07	1.0575	0.724	0.1695
23-Nov-88	35.8	48.84	73.84	0.11	0.225	0.07	1.0575	0.724	0.1695
24-Nov-88	30.7	43.72	68.72	0.11	0.225	0.07	1.0575	0.724	0.1695
25-Nov-88	32.9	45.86	70.86	0.11	0.225	0.07	1.0575	0.724	0.1695
26-Nov-88	24.2	37.55	62.55	0.11	0.225	0.07	1.0575	0.724	0.1695
27-Nov-88	28.0	41.35	66.35	0.11	0.225	0.07	1.0575	0.724	0.1695
28-Nov-88	29.3	42.70	67.70	0.11	0.225	0.07	1.0575	0.724	0.1695
29-Nov-88	27.3	40.70	65.70	0.11	0.225	0.07	1.0575	0.724	0.1695
30-Nov-88	28.0	41.35	66.35	0.11	0.225	0.07	1.0575	0.724	0.1695
1-Dec-88	52.2	65.57	90.57	0.11	0.225	0.07	1.0575	0.724	0.1695

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
2-Dec-88	49.4	62.73	87.73	0.11	0.225	0.07	1.0575	0.724	0.1695
3-Dec-88	43.1	56.50	81.50	0.08	0.225	0.07	0.695	0.724	0.1695
4-Dec-88	44.0	57.37	82.37	0.09	0.225	0.07	0.8225	0.724	0.1695
5-Dec-88	39.0	52.35	77.35	0.09	0.225	0.07	0.8225	0.724	0.1695
6-Dec-88	31.4	45.14	70.14	0.09	0.225	0.07	0.8225	0.724	0.1695
7-Dec-88	33.6	47.31	72.31	0.09	0.225	0.07	0.8225	0.724	0.1695
8-Dec-88	21.8	35.56	60.56	0.09	0.225	0.07	0.8225	0.724	0.1695
9-Dec-88	21.3	34.99	59.99	0.09	0.225	0.07	0.8225	0.724	0.1695
10-Dec-88	24.8	38.53	63.53	0.09	0.225	0.07	0.8225	0.724	0.1695
11-Dec-88	29.3	43.06	68.06	0.09	0.225	0.07	0.8225	0.724	0.1695
12-Dec-88	28.0	41.71	66.71	0.09	0.225	0.07	0.8225	0.724	0.1695
13-Dec-88	27.3	41.06	66.06	0.09	0.225	0.07	0.8225	0.724	0.1695
14-Dec-88	25.4	39.14	64.14	0.09	0.225	0.07	0.8225	0.724	0.1695
15-Dec-88	28.0	41.71	66.71	0.09	0.225	0.07	0.8225	0.724	0.1695
16-Dec-88	41.4	55.16	80.16	0.09	0.225	0.07	0.8225	0.724	0.1695
17-Dec-88	39.0	52.71	77.71	0.09	0.225	0.07	0.8225	0.724	0.1695
18-Dec-88	38.2	51.91	76.91	0.09	0.225	0.07	0.8225	0.724	0.1695
19-Dec-88	39.0	52.71	77.71	0.09	0.225	0.07	0.8225	0.724	0.1695
20-Dec-88	38.2	51.91	76.91	0.09	0.225	0.07	0.8225	0.724	0.1695
21-Dec-88	35.8	49.56	74.56	0.09	0.225	0.07	0.8225	0.724	0.1695
22-Dec-88	32.9	46.58	71.58	0.09	0.225	0.07	0.8225	0.724	0.1695
23-Dec-88	39.0	52.71	77.71	0.09	0.225	0.07	0.8225	0.724	0.1695
24-Dec-88	41.4	55.16	80.16	0.09	0.225	0.07	0.8225	0.724	0.1695
25-Dec-88	32.1	45.86	70.86	0.09	0.225	0.07	0.8225	0.724	0.1695
26-Dec-88	34.3	48.04	73.04	0.09	0.225	0.07	0.8225	0.724	0.1695
27-Dec-88	34.3	48.04	73.04	0.09	0.225	0.07	0.8225	0.724	0.1695
28-Dec-88	34.3	48.04	73.04	0.09	0.2	0.07	0.8225	0.664	0.1695
29-Dec-88	37.4	51.11	76.11	0.09	0.225	0.07	0.8225	0.8005	0.1695
30-Dec-88	41.0	54.74	79.74	0.09	0.225	0.07	0.8225	0.8005	0.1695
31-Dec-88	44.9	58.59	83.59	0.09	0.225	0.07	0.8225	0.8005	0.1695
1-Jan-89	23.6	34.81	59.81	0.09	0.225	0.07	0.8225	0.8005	0.1695
2-Jan-89	23.6	34.81	59.81	0.09	0.225	0.07	0.8225	0.8005	0.1695
3-Jan-89	23.0	34.23	59.23	0.09	0.225	0.07	0.8225	0.8005	0.1695
4-Jan-89	21.8	33.06	58.06	0.09	0.225	0.07	0.8225	0.8005	0.1695
5-Jan-89	20.7	31.94	56.94	0.09	0.225	0.07	0.8225	0.8005	0.1695
6-Jan-89	20.2	31.39	56.39	0.09	0.225	0.07	0.8225	0.8005	0.1695
7-Jan-89	20.2	31.39	56.39	0.09	0.225	0.07	0.8225	0.8005	0.1695
8-Jan-89	24.2	35.41	60.41	0.09	0.225	0.07	0.8225	0.8005	0.1695
9-Jan-89	26.7	37.91	62.91	0.09	0.225	0.07	0.8225	0.8005	0.1695

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
10-Jan-89	26.7	37.91	62.91	0.09	0.225	0.07	0.8225	0.8005	0.1695
11-Jan-89	25.4	36.64	61.64	0.09	0.225	0.07	0.8225	0.8005	0.1695
12-Jan-89	27.3	38.56	63.56	0.09	0.225	0.07	0.8225	0.8005	0.1695
13-Jan-89	31.4	42.64	67.64	0.09	0.225	0.07	0.8225	0.8005	0.1695
14-Jan-89	40.6	51.84	76.84	0.1	0.225	0.07	0.95	0.8005	0.1695
15-Jan-89	31.2	42.45	67.45	0.105	0.225	0.07	0.878	0.8005	0.1695
16-Jan-89	31.2	42.45	67.45	0.105	0.225	0.07	0.878	0.8005	0.1695
17-Jan-89	31.2	42.45	67.45	0.105	0.225	0.07	0.878	0.8005	0.1695
18-Jan-89	31.2	42.45	67.45	0.105	0.225	0.07	0.878	0.8005	0.1695
19-Jan-89	21.8	33.06	58.06	0.105	0.225	0.07	0.878	0.8005	0.1695
20-Jan-89	26.1	37.28	62.28	0.105	0.225	0.07	0.878	0.8005	0.1695
21-Jan-89	30.0	41.24	66.24	0.105	0.225	0.07	0.878	0.8005	0.1695
22-Jan-89	21.8	33.06	58.06	0.105	0.225	0.07	0.878	0.8005	0.1695
23-Jan-89	33.6	44.81	69.81	0.105	0.225	0.07	0.878	0.8005	0.1695
24-Jan-89	29.3	40.56	65.56	0.105	0.225	0.07	0.878	0.8005	0.1695
25-Jan-89	35.1	46.29	71.29	0.105	0.25	0.11	0.878	0.937	0.279
26-Jan-89	41.4	52.66	77.66	0.105	0.275	0.1	0.878	0.738	0.308
27-Jan-89	28.0	39.21	64.21	0.105	0.275	0.1	0.878	0.738	0.308
28-Jan-89	39.8	51.01	76.01	0.105	0.275	0.1	0.878	0.738	0.308
29-Jan-89	44.9	56.09	81.09	0.105	0.275	0.1	0.878	0.738	0.308
30-Jan-89	38.2	49.41	74.41	0.105	0.275	0.1	0.878	0.738	0.308
31-Jan-89	39.8	46.18	71.18	0.105	0.275	0.1	0.878	0.738	0.308
1-Feb-89	36.6	43.00	68.00	0.105	0.275	0.1	0.878	0.738	0.308
2-Feb-89	39.8	46.18	71.18	0.105	0.275	0.1	0.878	0.738	0.308
3-Feb-89	33.6	39.98	64.98	0.105	0.275	0.1	0.878	0.738	0.308
4-Feb-89	35.8	42.23	67.23	0.105	0.275	0.1	0.878	0.738	0.308
5-Feb-89	39.8	46.18	71.18	0.105	0.275	0.1	0.878	0.738	0.308
6-Feb-89	39.8	46.18	71.18	0.105	0.275	0.1	0.878	0.738	0.308
7-Feb-89	35.8	42.23	67.23	0.105	0.275	0.1	0.878	0.738	0.308
8-Feb-89	41.0	47.41	72.41	0.105	0.275	0.1	0.878	0.738	0.308
9-Feb-89	33.2	39.61	64.61	0.11	0.3	0.1	0.806	0.539	0.308
10-Feb-89	31.4	37.28	62.28	0.095	0.25	0.1	0.698	0.5895	0.308
11-Feb-89	29.7	35.53	60.53	0.095	0.25	0.1	0.698	0.5895	0.308
12-Feb-89	29.7	35.53	60.53	0.095	0.25	0.1	0.698	0.5895	0.308
13-Feb-89	27.3	33.19	58.19	0.095	0.25	0.1	0.698	0.5895	0.308
14-Feb-89	25.4	31.28	56.28	0.095	0.25	0.1	0.698	0.5895	0.308
15-Feb-89	25.4	31.28	56.28	0.095	0.25	0.1	0.698	0.5895	0.308
16-Feb-89	22.4	28.28	53.28	0.095	0.25	0.1	0.698	0.5895	0.308
17-Feb-89	21.6	27.41	52.41	0.095	0.25	0.1	0.698	0.5895	0.308

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
18-Feb-89	34.7	40.56	65.56	0.095	0.25	0.1	0.698	0.5895	0.308
19-Feb-89	30.0	35.88	60.88	0.095	0.25	0.1	0.698	0.5895	0.308
20-Feb-89	27.7	32.26	57.26	0.095	0.25	0.1	0.698	0.5895	0.308
21-Feb-89	24.2	28.78	53.78	0.095	0.25	0.1	0.698	0.5895	0.308
22-Feb-89	30.4	34.96	59.96	0.095	0.25	0.1	0.698	0.5895	0.308
23-Feb-89	38.2	42.78	67.78	0.095	0.25	0.1	0.698	0.5895	0.308
24-Feb-89	35.8	40.43	65.43	0.095	0.25	0.1	0.698	0.5895	0.308
25-Feb-89	24.2	28.78	53.78	0.095	0.25	0.1	0.698	0.5895	0.308
26-Feb-89	22.7	27.29	52.29	0.095	0.25	0.1	0.698	0.5895	0.308
27-Feb-89	32.1	36.73	61.73	0.095	0.25	0.1	0.698	0.5895	0.308
28-Feb-89	30.7	35.31	60.31	0.095	0.25	0.1	0.698	0.5895	0.308
1-Mar-89	37.4	41.98	66.98	0.08	0.2	0.09	0.59	0.64	0.337
2-Mar-89	28.0	21.20	46.20	0.09	0.25	0.075	0.683	0.6215	0.2555
3-Mar-89	30.7	23.93	48.93	0.09	0.25	0.075	0.683	0.6215	0.2555
4-Mar-89	30.0	23.23	48.23	0.09	0.25	0.075	0.683	0.6215	0.2555
5-Mar-89	29.3	22.55	47.55	0.09	0.25	0.075	0.683	0.6215	0.2555
6-Mar-89	30.0	23.23	48.23	0.09	0.25	0.075	0.683	0.6215	0.2555
7-Mar-89	20.7	13.93	38.93	0.09	0.25	0.075	0.683	0.6215	0.2555
8-Mar-89	21.8	15.05	40.05	0.09	0.25	0.075	0.683	0.6215	0.2555
9-Mar-89	30.7	23.93	48.93	0.09	0.25	0.075	0.683	0.6215	0.2555
10-Mar-89	33.6	26.80	51.80	0.09	0.25	0.075	0.683	0.6215	0.2555
11-Mar-89	30.0	23.23	48.23	0.09	0.25	0.075	0.683	0.6215	0.2555
12-Mar-89	32.1	25.35	50.35	0.09	0.25	0.075	0.683	0.6215	0.2555
13-Mar-89	36.6	29.82	54.82	0.09	0.25	0.075	0.683	0.6215	0.2555
14-Mar-89	34.3	27.53	52.53	0.09	0.25	0.075	0.683	0.6215	0.2555
15-Mar-89	32.1	25.35	50.35	0.09	0.25	0.075	0.683	0.6215	0.2555
16-Mar-89	28.0	21.20	46.20	0.09	0.25	0.075	0.683	0.6215	0.2555
17-Mar-89	28.7	21.87	46.87	0.09	0.25	0.075	0.683	0.6215	0.2555
18-Mar-89	32.9	26.07	51.07	0.09	0.25	0.075	0.683	0.6215	0.2555
19-Mar-89	32.9	26.07	51.07	0.09	0.25	0.075	0.683	0.6215	0.2555
20-Mar-89	30.7	23.93	48.93	0.09	0.25	0.075	0.683	0.6215	0.2555
21-Mar-89	26.1	19.27	44.27	0.09	0.25	0.075	0.683	0.6215	0.2555
22-Mar-89	28.7	21.87	46.87	0.09	0.25	0.075	0.683	0.6215	0.2555
23-Mar-89	24.8	18.02	43.02	0.09	0.25	0.075	0.683	0.6215	0.2555
24-Mar-89	30.7	23.93	48.93	0.09	0.25	0.075	0.683	0.6215	0.2555
25-Mar-89	21.3	14.48	39.48	0.09	0.25	0.075	0.683	0.6215	0.2555
26-Mar-89	19.6	12.85	37.85	0.09	0.25	0.075	0.683	0.6215	0.2555
27-Mar-89	23.0	16.22	41.22	0.09	0.25	0.075	0.683	0.6215	0.2555
28-Mar-89	14.7	7.92	32.92	0.09	0.25	0.075	0.683	0.6215	0.2555

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
29-Mar-89	11.8	4.97	29.97	0.09	0.25	0.075	0.683	0.6215	0.2555
30-Mar-89	16.6	9.78	34.78	0.09	0.25	0.075	0.683	0.6215	0.2555
31-Mar-89	23.0	16.22	41.22	0.09	0.25	0.075	0.683	0.6215	0.2555
1-Apr-89	52.2	45.73	70.73	0.09	0.25	0.075	0.683	0.6215	0.2555
2-Apr-89	51.3	44.78	69.78	0.09	0.25	0.075	0.683	0.6215	0.2555
3-Apr-89	61.3	54.80	79.80	0.09	0.25	0.075	0.683	0.6215	0.2555
4-Apr-89	56.1	49.65	74.65	0.09	0.25	0.075	0.683	0.6215	0.2555
5-Apr-89	40.6	34.15	59.15	0.09	0.25	0.075	0.683	0.6215	0.2555
6-Apr-89	59.2	52.70	77.70	0.1	0.25	0.075	0.776	0.6215	0.2555
7-Apr-89	73.5	67.06	92.06	0.175	0.25	0.075	1.553	0.6215	0.2555
8-Apr-89	84.6	78.11	103.11	0.175	0.3	0.075	1.553	0.603	0.2555
9-Apr-89	80.8	74.33	99.33	0.175	0.3	0.075	1.553	0.571	0.2555
10-Apr-89	85.9	79.40	104.40	0.175	0.3	0.075	1.553	0.571	0.2555
11-Apr-89	84.6	78.11	103.11	0.175	0.3	0.075	1.553	0.571	0.2555
12-Apr-89	73.5	67.06	92.06	0.175	0.3	0.075	1.553	0.571	0.2555
13-Apr-89	51.3	44.78	69.78	0.175	0.3	0.075	1.553	0.571	0.2555
14-Apr-89	54.1	47.66	72.66	0.175	0.3	0.075	1.553	0.571	0.2555
15-Apr-89	56.1	49.65	74.65	0.175	0.3	0.075	1.553	0.571	0.2555
16-Apr-89	85.9	79.40	104.40	0.175	0.3	0.075	1.553	0.571	0.2555
17-Apr-89	63.4	56.93	81.93	0.175	0.3	0.075	1.553	0.571	0.2555
18-Apr-89	63.4	56.93	81.93	0.175	0.3	0.075	1.553	0.571	0.2555
19-Apr-89	59.2	52.70	77.70	0.175	0.3	0.075	1.553	0.571	0.2555
20-Apr-89	65.6	59.10	84.10	0.175	0.3	0.075	1.553	0.571	0.2555
21-Apr-89	67.8	58.16	83.16	0.175	0.3	0.075	1.553	0.571	0.2555
22-Apr-89	65.6	55.94	80.94	0.175	0.3	0.075	1.553	0.571	0.2555
23-Apr-89	64.5	54.86	79.86	0.175	0.3	0.075	1.553	0.571	0.2555
24-Apr-89	62.3	52.69	77.69	0.175	0.3	0.075	1.553	0.571	0.2555
25-Apr-89	57.1	47.51	72.51	0.175	0.3	0.075	1.553	0.571	0.2555
26-Apr-89	52.2	42.58	67.58	0.175	0.3	0.075	1.553	0.571	0.2555
27-Apr-89	56.1	46.49	71.49	0.175	0.3	0.075	1.553	0.571	0.2555
28-Apr-89	56.1	46.49	71.49	0.175	0.3	0.075	1.553	0.571	0.2555
29-Apr-89	55.1	45.51	70.51	0.175	0.3	0.075	1.553	0.571	0.2555
30-Apr-89	54.1	44.51	69.51	0.175	0.3	0.075	1.553	0.571	0.2555
1-May-89	62.1	307.07	332.07	0.175	0.3	0.075	1.553	0.571	0.2555
2-May-89	85.9	330.86	355.86	0.175	0.3	0.075	1.553	0.571	0.2555
3-May-89	40.6	285.61	310.61	0.175	0.3	0.075	1.553	0.571	0.2555
4-May-89	47.7	292.65	317.65	0.175	0.3	0.075	1.553	0.571	0.2555
5-May-89	47.7	292.65	317.65	0.175	0.3	0.075	1.553	0.571	0.2555
6-May-89	47.7	292.65	317.65	0.175	0.3	0.075	1.553	0.571	0.2555

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
7-May-89	47.7	292.65	317.65	0.175	0.3	0.075	1.553	0.571	0.2555
8-May-89	47.7	292.65	317.65	0.175	0.3	0.075	1.553	0.571	0.2555
9-May-89	47.7	292.65	317.65	0.175	0.3	0.075	1.553	0.539	0.2555
10-May-89	47.7	292.65	317.65	0.175	0.325	0.075	1.553	0.6105	0.2555
11-May-89	47.7	200.43	225.43	0.175	0.325	0.075	1.553	0.6105	0.2555
12-May-89	47.7	200.43	225.43	0.175	0.325	0.075	1.553	0.6105	0.2555
13-May-89	47.7	200.43	225.43	0.175	0.325	0.075	1.553	0.6105	0.2555
14-May-89	47.7	200.43	225.43	0.175	0.325	0.075	1.553	0.6105	0.2555
15-May-89	47.7	200.43	225.43	0.175	0.325	0.075	1.553	0.6105	0.2555
16-May-89	47.7	200.43	225.43	0.175	0.325	0.075	1.553	0.6105	0.2555
17-May-89	47.7	200.43	225.43	0.175	0.325	0.075	1.553	0.6105	0.2555
18-May-89	47.7	200.43	225.43	0.175	0.325	0.075	1.553	0.6105	0.2555
19-May-89	47.7	200.43	225.43	0.175	0.325	0.075	1.553	0.6105	0.2555
20-May-89	47.7	200.43	225.43	0.175	0.325	0.075	1.553	0.6105	0.2555
21-May-89	47.7	141.18	166.18	0.175	0.325	0.075	1.553	0.6105	0.2555
22-May-89	47.7	141.18	166.18	0.175	0.325	0.075	1.553	0.6105	0.2555
23-May-89	47.7	141.18	166.18	0.175	0.325	0.075	1.553	0.6105	0.2555
24-May-89	47.7	141.18	166.18	0.175	0.325	0.075	1.553	0.6105	0.2555
25-May-89	47.7	141.18	166.18	0.175	0.325	0.075	1.553	0.6105	0.2555
26-May-89	47.7	141.18	166.18	0.175	0.325	0.075	1.553	0.6105	0.2555
27-May-89	47.7	141.18	166.18	0.175	0.325	0.075	1.553	0.6105	0.2555
28-May-89	47.7	141.18	166.18	0.175	0.325	0.075	1.553	0.6105	0.2555
29-May-89	47.7	141.18	166.18	0.175	0.325	0.075	1.553	0.6105	0.2555
30-May-89	54.7	148.22	173.22	0.25	0.325	0.075	2.33	0.6105	0.2555
31-May-89	56.9	161.06	186.06	0.275	0.325	0.075	2.615	0.6105	0.2555
1-Jun-89	59.2	163.29	188.29	0.275	0.325	0.075	2.615	0.6105	0.2555
2-Jun-89	46.6	150.76	175.76	0.275	0.325	0.075	2.615	0.6105	0.2555
3-Jun-89	57.1	161.26	186.26	0.275	0.325	0.075	2.615	0.6105	0.2555
4-Jun-89	58.2	162.28	187.28	0.3	0.35	0.06	2.9	0.682	0.174
5-Jun-89	58.2	162.28	187.28	0.475	0.325	0.06	4.965	0.79	0.144
6-Jun-89	54.1	158.26	183.26	0.475	0.325	0.06	4.965	0.79	0.144
7-Jun-89	53.2	157.29	182.29	0.475	0.325	0.06	4.965	0.79	0.144
8-Jun-89	58.2	162.28	187.28	0.475	0.325	0.06	4.965	0.79	0.144
9-Jun-89	54.1	158.26	183.26	0.475	0.325	0.06	4.965	0.79	0.144
10-Jun-89	55.1	124.17	149.17	0.475	0.325	0.06	4.965	0.79	0.144
11-Jun-89	58.2	127.19	152.19	0.475	0.325	0.06	4.965	0.79	0.144
12-Jun-89	59.2	128.20	153.20	0.475	0.325	0.06	4.965	0.79	0.144
13-Jun-89	65.6	134.60	159.60	0.475	0.325	0.06	4.965	0.79	0.144
14-Jun-89	68.9	137.95	162.95	0.475	0.325	0.06	4.965	0.79	0.144

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
15-Jun-89	67.8	136.82	161.82	0.475	0.325	0.06	4.965	0.79	0.144
16-Jun-89	63.4	132.44	157.44	0.475	0.325	0.06	4.965	0.79	0.144
17-Jun-89	44.0	113.04	138.04	0.475	0.325	0.06	4.965	0.79	0.144
18-Jun-89	35.8	104.87	129.87	0.475	0.325	0.06	4.965	0.79	0.144
19-Jun-89	49.4	118.40	143.40	0.475	0.325	0.06	4.965	0.79	0.144
20-Jun-89	32.9	101.33	126.33	0.475	0.325	0.06	4.965	0.79	0.144
21-Jun-89	26.1	94.53	119.53	0.475	0.325	0.06	4.965	0.79	0.144
22-Jun-89	25.4	93.90	118.90	0.475	0.325	0.06	4.965	0.79	0.144
23-Jun-89	27.3	95.81	120.81	0.475	0.325	0.06	4.965	0.79	0.144
24-Jun-89	26.1	94.53	119.53	0.475	0.325	0.06	4.965	0.79	0.144
25-Jun-89	28.0	96.46	121.46	0.475	0.325	0.06	4.965	0.79	0.144
26-Jun-89	28.0	96.46	121.46	0.475	0.325	0.06	4.965	0.79	0.144
27-Jun-89	27.3	95.81	120.81	0.475	0.325	0.06	4.965	0.79	0.144
28-Jun-89	25.4	93.90	118.90	0.475	0.325	0.06	4.965	0.79	0.144
29-Jun-89	24.8	93.28	118.28	0.475	0.325	0.06	4.965	0.79	0.144
30-Jun-89	26.1	83.93	108.93	0.475	0.325	0.06	4.965	0.79	0.144
1-Jul-89	27.3	85.20	110.20	0.475	0.325	0.06	4.965	0.79	0.144
2-Jul-89	35.8	93.70	118.70	0.475	0.325	0.06	4.965	0.79	0.144
3-Jul-89	32.5	90.35	115.35	0.475	0.325	0.06	4.965	0.79	0.144
4-Jul-89	31.8	89.63	114.63	0.475	0.325	0.06	4.965	0.79	0.144
5-Jul-89	30.7	88.58	113.58	0.475	0.325	0.06	4.965	0.79	0.144
6-Jul-89	30.7	88.58	113.58	0.475	0.325	0.06	4.965	0.79	0.144
7-Jul-89	29.3	87.20	112.20	0.475	0.325	0.06	4.965	0.79	0.144
8-Jul-89	30.7	88.58	113.58	0.475	0.325	0.06	4.965	0.79	0.144
9-Jul-89	29.3	87.20	112.20	0.475	0.325	0.06	4.965	0.79	0.144
10-Jul-89	27.3	77.56	102.56	0.475	0.325	0.06	4.965	0.79	0.11
11-Jul-89	27.3	77.56	102.56	0.475	0.325	0.06	4.965	0.79	0.108
12-Jul-89	26.7	76.91	101.91	0.475	0.325	0.06	4.965	0.79	0.108
13-Jul-89	25.4	75.64	100.64	0.65	0.325	0.06	7.03	0.79	0.108
14-Jul-89	26.7	76.91	101.91	0.6	0.325	0.06	6.74	0.79	0.108
15-Jul-89	24.2	74.41	99.41	0.6	0.325	0.06	6.74	0.79	0.108
16-Jul-89	23.0	73.22	98.22	0.6	0.325	0.06	6.74	0.79	0.108
17-Jul-89	23.3	73.51	98.51	0.6	0.325	0.06	6.74	0.79	0.108
18-Jul-89	28.3	78.54	103.54	0.6	0.325	0.06	6.74	0.79	0.108
19-Jul-89	31.1	81.29	106.29	0.6	0.3	0.06	6.74	0.898	0.108
20-Jul-89	26.1	56.04	81.04	0.6	0.325	0.06	6.74	0.8985	0.108
21-Jul-89	27.3	57.33	82.33	0.6	0.325	0.06	6.74	0.8985	0.108
22-Jul-89	30.7	60.71	85.71	0.6	0.325	0.06	6.74	0.8985	0.108
23-Jul-89	26.1	56.04	81.04	0.6	0.325	0.06	6.74	0.8985	0.108

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
24-Jul-89	24.5	54.49	79.49	0.6	0.325	0.06	6.74	0.8985	0.108
25-Jul-89	45.8	75.74	100.74	0.6	0.325	0.06	6.74	0.8985	0.108
26-Jul-89	33.6	63.58	88.58	0.6	0.325	0.06	6.74	0.8985	0.108
27-Jul-89	29.0	58.99	83.99	0.6	0.325	0.06	6.74	0.8985	0.108
28-Jul-89	27.3	57.33	82.33	0.6	0.325	0.06	6.74	0.8985	0.108
29-Jul-89	26.7	56.68	81.68	0.6	0.325	0.06	6.74	0.8985	0.108
30-Jul-89	26.4	54.22	79.22	0.6	0.325	0.06	6.74	0.8985	0.108
31-Jul-89	27.3	55.19	80.19	0.6	0.325	0.06	6.74	0.8985	0.108
1-Aug-89	23.0	50.86	75.86	0.6	0.325	0.06	6.74	0.8985	0.108
2-Aug-89	23.0	50.86	75.86	0.6	0.325	0.06	6.74	0.8985	0.10
3-Aug-89	27.3	55.19	80.19	0.6	0.325	0.05	6.74	0.8985	0.103
4-Aug-89	23.0	50.86	75.86	0.6	0.325	0.05	6.74	0.8985	0.103
5-Aug-89	21.3	49.12	74.12	0.6	0.325	0.05	6.74	0.8985	0.103
6-Aug-89	21.3	49.12	74.12	0.6	0.325	0.05	6.74	0.8985	0.103
7-Aug-89	21.0	48.86	73.86	0.6	0.325	0.05	6.74	0.8985	0.103
8-Aug-89	21.0	48.86	73.86	0.6	0.325	0.05	6.74	0.8985	0.103
9-Aug-89	20.2	48.73	73.73	0.6	0.325	0.05	6.74	0.8985	0.103
10-Aug-89	20.2	48.73	73.73	0.6	0.325	0.05	6.74	0.8985	0.103
11-Aug-89	19.6	48.20	73.20	0.6	0.325	0.05	6.74	0.8985	0.103
12-Aug-89	18.8	47.40	72.40	0.55	0.35	0.05	6.45	0.899	0.103
13-Aug-89	18.6	47.15	72.15	0.55	0.375	0.05	6.65	0.9945	0.103
14-Aug-89	18.6	47.15	72.15	0.55	0.375	0.05	6.65	0.9945	0.103
15-Aug-89	18.3	46.88	71.88	0.55	0.375	0.05	6.65	0.9945	0.103
16-Aug-89	19.6	48.20	73.20	0.55	0.375	0.05	6.65	0.9945	0.103
17-Aug-89	21.8	50.40	75.40	0.55	0.375	0.05	6.65	0.9945	0.103
18-Aug-89	19.6	48.20	73.20	0.55	0.375	0.05	6.65	0.9945	0.103
19-Aug-89	19.1	26.92	51.92	0.55	0.375	0.05	6.65	0.9945	0.103
20-Aug-89	20.7	28.53	53.53	0.55	0.375	0.05	6.65	0.9945	0.103
21-Aug-89	19.4	27.18	52.18	0.55	0.375	0.05	6.65	0.9945	0.103
22-Aug-89	18.8	26.65	51.65	0.55	0.375	0.05	6.65	0.9945	0.103
23-Aug-89	21.8	29.65	54.65	0.55	0.375	0.05	6.65	0.9945	0.103
24-Aug-89	30.7	38.53	63.53	0.55	0.375	0.05	6.65	0.9945	0.103
25-Aug-89	21.3	29.08	54.08	0.55	0.375	0.05	6.65	0.9945	0.103
26-Aug-89	19.4	27.18	52.18	0.55	0.375	0.05	6.65	0.9945	0.103
27-Aug-89	18.6	26.40	51.40	0.55	0.375	0.05	6.65	0.9945	0.103
28-Aug-89	18.3	26.13	51.13	0.55	0.375	0.04	6.65	0.9945	0.10
29-Aug-89	18.1	44.69	69.69	0.55	0.375	0.04	6.65	0.9945	0.1095
30-Aug-89	18.1	44.69	69.69	0.55	0.375	0.04	6.65	0.9945	0.1095
31-Aug-89	18.1	44.69	69.69	0.55	0.375	0.04	6.65	0.9945	0.1095
1-Sep-89	17.6	44.18	69.18	0.55	0.375	0.04	6.65	0.9945	0.1095

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
2-Sep-89	23.0	49.63	74.63	0.55	0.375	0.04	6.65	0.9945	0.1095
3-Sep-89	24.8	51.43	76.43	0.55	0.375	0.04	6.65	0.9945	0.1095
4-Sep-89	20.7	47.34	72.34	0.55	0.375	0.04	6.65	0.9945	0.1095
5-Sep-89	18.1	44.69	69.69	0.55	0.375	0.04	6.65	0.9945	0.1095
6-Sep-89	19.6	46.26	71.26	0.55	0.375	0.04	6.65	0.9945	0.1095
7-Sep-89	17.6	44.18	69.18	0.55	0.375	0.04	6.65	0.9945	0.1095
8-Sep-89	19.6	49.43	74.43	0.55	0.375	0.04	6.65	0.9945	0.1095
9-Sep-89	20.2	49.96	74.96	0.55	0.375	0.04	6.65	0.9945	0.1095
10-Sep-89	18.6	48.38	73.38	0.55	0.375	0.04	6.65	0.9945	0.1095
11-Sep-89	19.1	48.89	73.89	0.55	0.375	0.04	6.85	0.9945	0.1095
12-Sep-89	20.2	49.96	74.96	0.525	0.375	0.04	6.175	0.9945	0.1095
13-Sep-89	19.6	49.43	74.43	0.525	0.375	0.04	6.175	0.9945	0.1095
14-Sep-89	19.6	49.43	74.43	0.525	0.375	0.04	6.175	0.9945	0.1095
15-Sep-89	19.1	48.89	73.89	0.525	0.375	0.04	6.175	0.9945	0.1095
16-Sep-89	21.3	51.06	76.06	0.525	0.375	0.04	6.175	0.9945	0.1095
17-Sep-89	21.3	51.06	76.06	0.525	0.375	0.04	6.175	0.9945	0.1095
18-Sep-89	20.7	71.61	96.61	0.525	0.375	0.04	6.175	0.9945	0.1095
19-Sep-89	20.2	71.06	96.06	0.525	0.375	0.04	6.175	0.9945	0.1095
20-Sep-89	19.1	69.99	94.99	0.525	0.375	0.04	6.175	0.9945	0.12
21-Sep-89	19.1	69.99	94.99	0.525	0.375	0.145	6.175	0.9945	0.4675
22-Sep-89	19.1	69.99	94.99	0.525	0.375	0.145	6.175	0.9945	0.4675
23-Sep-89	20.7	71.61	96.61	0.525	0.375	0.145	6.175	0.9945	0.4675
24-Sep-89	20.7	71.61	96.61	0.525	0.4	0.145	6.175	1.09	0.4675
25-Sep-89	20.2	71.06	96.06	0.525	0.425	0.145	6.175	1.12	0.4675
26-Sep-89	19.6	70.52	95.52	0.525	0.425	0.145	6.175	1.12	0.4675
27-Sep-89	18.6	69.47	94.47	0.525	0.425	0.145	6.175	1.12	0.4675
28-Sep-89	18.1	68.96	93.96	0.525	0.425	0.145	6.175	1.12	0.4675
29-Sep-89	17.1	67.96	92.96	0.525	0.425	0.145	6.175	1.12	0.4675
30-Sep-89	16.1	67.01	92.01	0.525	0.425	0.145	6.175	1.12	0.4675
1-Oct-89	15.2	26.69	51.69	0.525	0.425	0.145	6.175	1.12	0.4675
2-Oct-89	14.5	26.00	51.00	0.525	0.425	0.145	6.175	1.12	0.4675
3-Oct-89	13.8	25.34	50.34	0.525	0.425	0.145	6.175	1.12	0.4675
4-Oct-89	14.3	25.79	50.79	0.525	0.425	0.145	6.175	1.12	0.4675
5-Oct-89	14.3	25.79	50.79	0.525	0.425	0.145	6.175	1.12	0.4675
6-Oct-89	11.8	23.27	48.27	0.525	0.425	0.145	6.175	1.12	0.4675
7-Oct-89	14.5	26.00	51.00	0.5	0.45	0.145	5.5	1.15	0.4675
8-Oct-89	14.3	26.21	51.21	0.5	0.45	0.145	5.35	1.31	0.4675
9-Oct-89	14.0	25.98	50.98	0.5	0.45	0.145	5.35	1.31	0.4675
10-Oct-89	14.3	26.21	51.21	0.5	0.45	0.145	5.35	1.31	0.4675
11-Oct-89	14.0	25.98	50.98	0.5	0.45	0.145	5.35	1.31	0.4675

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
12-Oct-89	14.9	26.88	51.88	0.5	0.45	0.145	5.35	1.31	0.4675
13-Oct-89	17.6	29.49	54.49	0.5	0.45	0.145	5.35	1.31	0.4675
14-Oct-89	18.1	30.01	55.01	0.5	0.45	0.145	5.35	1.31	0.4675
15-Oct-89	17.8	29.76	54.76	0.5	0.45	0.145	5.35	1.31	0.4675
16-Oct-89	17.8	29.76	54.76	0.5	0.45	0.145	5.35	1.31	0.4675
17-Oct-89	17.8	29.76	54.76	0.5	0.45	0.145	5.35	1.31	0.4675
18-Oct-89	17.1	26.60	51.60	0.5	0.45	0.145	5.35	1.31	0.4675
19-Oct-89	16.8	26.35	51.35	0.5	0.45	0.145	5.35	1.31	0.4675
20-Oct-89	16.6	26.10	51.10	0.5	0.45	0.145	5.35	1.31	0.4675
21-Oct-89	16.6	26.10	51.10	0.5	0.45	0.145	5.35	1.31	0.4675
22-Oct-89	16.6	26.10	51.10	0.5	0.45	0.145	5.35	1.31	0.4675
23-Oct-89	16.6	26.10	51.10	0.5	0.45	0.145	5.35	1.31	0.4675
24-Oct-89	17.1	26.60	51.60	0.5	0.45	0.145	5.35	1.31	0.4675
25-Oct-89	16.8	26.35	51.35	0.5	0.45	0.145	5.35	1.31	0.4675
26-Oct-89	15.9	25.38	50.38	0.5	0.45	0.145	5.35	1.31	0.4675
27-Oct-89	15.6	25.15	50.15	0.5	0.45	0.145	5.35	1.31	0.4675
28-Oct-89	14.0	26.24	51.24	0.5	0.45	0.145	5.35	1.31	0.4675
29-Oct-89	15.2	27.37	52.37	0.5	0.45	0.145	5.35	1.31	0.4675
30-Oct-89	16.1	28.30	53.30	0.5	0.45	0.145	5.35	1.31	0.4675
31-Oct-89	14.0	26.24	51.24	0.5	0.45	0.145	5.35	1.31	0.4675
1-Nov-89	13.0	25.17	50.17	0.5	0.45	0.145	5.35	1.31	0.4675
2-Nov-89	11.8	23.95	48.95	0.5	0.45	0.145	5.2	1.31	0.4675
3-Nov-89	13.0	25.17	50.17	0.55	0.45	0.145	5.985	1.31	0.4675
4-Nov-89	13.0	25.17	50.17	0.55	0.45	0.145	5.985	1.31	0.4675
5-Nov-89	13.0	25.17	50.17	0.55	0.45	0.145	5.985	1.31	0.4675
6-Nov-89	12.6	24.75	49.75	0.55	0.45	0.145	5.985	1.31	0.4675
7-Nov-89	13.0	28.30	53.30	0.55	0.45	0.145	5.985	1.31	0.4675
8-Nov-89	9.9	25.21	50.21	0.55	0.45	0.145	5.985	1.31	0.4675
9-Nov-89	11.4	26.70	51.70	0.55	0.45	0.145	5.985	1.31	0.4675
10-Nov-89	12.6	27.88	52.88	0.55	0.45	0.145	5.985	1.31	0.4675
11-Nov-89	12.6	27.88	52.88	0.55	0.45	0.145	5.985	1.31	0.4675
12-Nov-89	10.2	25.56	50.56	0.55	0.45	0.145	5.985	1.31	0.4675
13-Nov-89	5.4	20.71	45.71	0.55	0.45	0.145	5.985	1.31	0.4675
14-Nov-89	6.7	22.03	47.03	0.55	0.45	0.145	5.985	1.31	0.4675
15-Nov-89	11.8	27.08	52.08	0.55	0.45	0.145	5.985	1.31	0.4675
16-Nov-89	11.4	26.70	51.70	0.55	0.45	0.145	5.985	1.31	0.4675
17-Nov-89	11.4	24.54	49.54	0.55	0.45	0.145	5.985	1.31	0.4675
18-Nov-89	10.6	23.77	48.77	0.55	0.45	0.145	5.985	1.31	0.4675
19-Nov-89	9.2	22.36	47.36	0.55	0.45	0.145	5.985	1.31	0.4675
20-Nov-89	8.2	21.37	46.37	0.55	0.45	0.145	5.985	1.31	0.4675

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
21-Nov-89	8.2	21.37	46.37	0.55	0.45	0.145	5.985	1.31	0.4675
22-Nov-89	7.9	21.06	46.06	0.55	0.45	0.145	5.985	1.31	0.4675
23-Nov-89	8.2	21.37	46.37	0.55	0.45	0.145	5.985	1.31	0.4675
24-Nov-89	9.2	22.36	47.36	0.55	0.45	0.145	5.985	1.31	0.4675
25-Nov-89	8.2	21.37	46.37	0.55	0.45	0.145	5.985	1.31	0.4675
26-Nov-89	7.9	21.06	46.06	0.55	0.45	0.145	5.985	1.31	0.4675
27-Nov-89	7.0	19.61	44.61	0.55	0.45	0.145	5.985	1.31	0.4675
28-Nov-89	6.7	19.33	44.33	0.55	0.45	0.145	5.985	1.31	0.4675
29-Nov-89	7.6	20.21	45.21	0.55	0.45	0.145	5.985	1.31	0.4675
30-Nov-89	7.6	20.21	45.21	0.55	0.45	0.145	5.985	1.31	0.4675
1-Dec-89	7.6	20.21	45.21	0.55	0.45	0.145	5.985	1.31	0.4675
2-Dec-89	7.3	19.91	44.91	0.55	0.45	0.145	5.985	1.31	0.4675
3-Dec-89	7.6	20.21	45.21	0.55	0.45	0.145	5.985	1.31	0.4675
4-Dec-89	8.2	20.83	45.83	0.55	0.45	0.145	5.985	1.31	0.4675
5-Dec-89	6.9	19.48	44.48	0.55	0.45	0.145	5.985	1.31	0.4675
6-Dec-89	6.7	19.33	44.33	0.55	0.45	0.145	5.985	1.31	0.4675
7-Dec-89	7.3	20.55	45.55	0.55	0.45	0.145	5.985	1.31	0.4675
8-Dec-89	7.3	20.55	45.55	0.55	0.45	0.145	5.985	1.31	0.4675
9-Dec-89	7.1	20.40	45.40	0.55	0.45	0.145	5.985	1.31	0.4675
10-Dec-89	7.4	20.70	45.70	0.55	0.45	0.145	5.985	1.31	0.4675
11-Dec-89	7.3	20.55	45.55	0.55	0.45	0.145	5.985	1.31	0.4675
12-Dec-89	7.0	20.25	45.25	0.55	0.45	0.145	5.985	1.31	0.4675
13-Dec-89	6.9	20.12	45.12	0.55	0.45	0.145	5.985	1.31	0.4675
14-Dec-89	6.3	19.55	44.55	0.55	0.45	0.145	5.985	1.31	0.4675
15-Dec-89	5.5	18.77	43.77	0.55	0.45	0.145	5.985	1.31	0.4675
16-Dec-89	6.9	20.12	45.12	0.55	0.45	0.145	5.985	1.31	0.4675
17-Dec-89	6.9	19.83	44.83	0.6	0.45	0.145	6.77	1.31	0.4675
18-Dec-89	7.0	19.97	44.97	0.575	0.45	0.145	5.985	1.31	0.4675
19-Dec-89	7.0	19.97	44.97	0.575	0.45	0.145	5.985	1.31	0.4675
20-Dec-89	6.3	19.27	44.27	0.575	0.45	0.145	5.985	1.31	0.4675
21-Dec-89	6.3	19.27	44.27	0.575	0.45	0.145	5.985	1.31	0.4675
22-Dec-89	5.9	18.87	43.87	0.575	0.45	0.145	5.985	1.31	0.4675
23-Dec-89	7.3	20.27	45.27	0.575	0.45	0.145	5.985	1.47	0.4675
24-Dec-89	7.4	20.42	45.42	0.575	0.525	0.145	5.985	1.7	0.4675
25-Dec-89	7.3	20.27	45.27	0.575	0.525	0.145	5.985	1.7	0.4675
26-Dec-89	7.9	20.87	45.87	0.575	0.525	0.145	5.985	1.7	0.4675
27-Dec-89	7.6	20.28	45.28	0.575	0.525	0.145	5.985	1.7	0.4675
28-Dec-89	6.9	19.54	44.54	0.575	0.525	0.145	5.985	1.7	0.4675
29-Dec-89	7.1	19.83	44.83	0.575	0.525	0.145	5.985	1.7	0.4675
30-Dec-89	7.4	20.13	45.13	0.575	0.525	0.145	5.985	1.7	0.4675

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
31-Dec-89	7.0	19.68	44.68	0.575	0.525	0.145	5.985	1.7	0.4675
1-Jan-90	10.2	21.52	46.52	0.575	0.525	0.145	5.985	1.7	0.4675
2-Jan-90	8.5	19.81	44.81	0.575	0.525	0.145	5.985	1.7	0.4675
3-Jan-90	8.2	19.49	44.49	0.575	0.525	0.145	5.985	1.7	0.4675
4-Jan-90	7.6	18.87	43.87	0.575	0.525	0.145	5.985	1.7	0.4675
5-Jan-90	7.3	18.57	43.57	0.575	0.525	0.145	5.985	1.7	0.4675
6-Jan-90	7.9	19.17	44.17	0.575	0.525	0.145	5.985	1.7	0.4675
7-Jan-90	8.5	19.81	44.81	0.575	0.525	0.145	5.985	1.7	0.4675
8-Jan-90	8.5	19.81	44.81	0.575	0.525	0.145	5.985	1.7	0.4675
9-Jan-90	8.2	19.49	44.49	0.575	0.525	0.145	5.985	1.7	0.4675
10-Jan-90	8.2	19.49	44.49	0.575	0.525	0.145	5.985	1.7	0.4675
11-Jan-90	7.6	18.87	43.87	0.55	0.525	0.145	5.2	1.7	0.4675
12-Jan-90	7.6	18.87	43.87	0.525	0.525	0.145	5.235	1.7	0.4675
13-Jan-90	7.6	18.87	43.87	0.525	0.525	0.145	5.235	1.7	0.4675
14-Jan-90	8.2	19.49	44.49	0.525	0.525	0.145	5.235	1.7	0.4675
15-Jan-90	7.9	19.17	44.17	0.525	0.6	0.25	5.235	1.93	0.82
16-Jan-90	8.2	19.49	44.49	0.525	0.65	0.275	5.235	1.89	0.91
17-Jan-90	7.9	19.17	44.17	0.525	0.65	0.275	5.235	1.89	0.91
18-Jan-90	7.9	19.17	44.17	0.525	0.65	0.275	5.235	1.89	0.91
19-Jan-90	7.9	19.17	44.17	0.525	0.65	0.275	5.235	1.89	0.91
20-Jan-90	7.0	18.27	43.27	0.525	0.65	0.275	5.235	1.89	0.91
21-Jan-90	8.2	19.49	44.49	0.525	0.65	0.275	5.235	1.89	0.91
22-Jan-90	8.2	19.49	44.49	0.525	0.65	0.275	5.235	1.89	0.91
23-Jan-90	8.5	19.81	44.81	0.525	0.65	0.275	5.235	1.89	0.91
24-Jan-90	8.5	19.81	44.81	0.525	0.65	0.275	5.235	1.89	0.91
25-Jan-90	8.2	19.49	44.49	0.525	0.65	0.275	5.235	1.89	0.91
26-Jan-90	7.9	19.17	44.17	0.525	0.65	0.275	5.235	1.89	0.91
27-Jan-90	7.6	18.87	43.87	0.525	0.65	0.275	5.235	1.89	0.91
28-Jan-90	7.3	18.57	43.57	0.525	0.65	0.275	5.235	1.89	0.91
29-Jan-90	7.0	18.27	43.27	0.525	0.65	0.275	5.235	1.89	0.91
30-Jan-90	6.7	17.99	42.99	0.525	0.65	0.275	5.235	1.89	0.91
31-Jan-90	7.3	13.68	38.68	0.525	0.65	0.275	5.235	1.89	0.91
1-Feb-90	7.0	13.38	38.38	0.525	0.65	0.275	5.235	1.89	0.91
2-Feb-90	7.3	13.68	38.68	0.525	0.65	0.275	5.235	1.89	0.91
3-Feb-90	7.6	13.98	38.98	0.525	0.65	0.275	5.235	1.89	0.91
4-Feb-90	7.7	14.13	39.13	0.525	0.65	0.275	5.235	1.89	0.91
5-Feb-90	7.6	13.98	38.98	0.525	0.65	0.275	5.235	1.89	0.91
6-Feb-90	7.7	14.13	39.13	0.525	0.65	0.275	5.235	1.89	0.91
7-Feb-90	7.7	14.13	39.13	0.525	0.65	0.275	5.235	1.89	0.91

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
8-Feb-90	7.4	13.83	38.83	0.525	0.65	0.275	5.235	1.89	0.91
9-Feb-90	6.9	13.25	38.25	0.525	0.65	0.275	5.235	1.89	0.91
10-Feb-90	7.0	12.73	37.73	0.525	0.7	0.3	5.235	1.85	1.00
11-Feb-90	7.0	12.73	37.73	0.525	0.525	0.2	5.235	1.945	1.04
12-Feb-90	6.7	12.45	37.45	0.525	0.525	0.2	5.235	1.945	1.04
13-Feb-90	6.7	12.45	37.45	0.525	0.525	0.2	5.235	1.945	1.04
14-Feb-90	7.0	12.73	37.73	0.525	0.525	0.2	5.235	1.945	1.04
15-Feb-90	6.7	12.45	37.45	0.525	0.525	0.2	5.235	1.945	1.04
16-Feb-90	6.7	12.45	37.45	0.525	0.525	0.2	5.235	1.945	1.04
17-Feb-90	7.0	12.73	37.73	0.525	0.525	0.2	5.235	1.945	1.04
18-Feb-90	7.0	12.73	37.73	0.525	0.525	0.2	5.235	1.945	1.04
19-Feb-90	7.0	12.73	37.73	0.525	0.525	0.2	5.235	1.945	1.04
20-Feb-90	7.6	12.73	37.73	0.525	0.525	0.2	5.235	1.945	1.04
21-Feb-90	6.7	11.85	36.85	0.525	0.525	0.2	5.235	1.945	1.04
22-Feb-90	6.7	11.85	36.85	0.525	0.525	0.2	5.235	1.945	1.04
23-Feb-90	7.0	12.13	37.13	0.525	0.525	0.2	5.235	1.945	1.04
24-Feb-90	6.7	11.85	36.85	0.525	0.525	0.2	5.235	1.945	1.04
25-Feb-90	7.1	12.28	37.28	0.5	0.525	0.2	5.27	1.945	1.04
26-Feb-90	6.6	11.71	36.71	0.475	0.525	0.2	4.535	1.945	1.04
27-Feb-90	6.7	11.85	36.85	0.475	0.525	0.2	4.535	1.945	1.04
28-Feb-90	7.3	12.43	37.43	0.475	0.525	0.2	4.535	1.945	1.04
1-Mar-90	7.0	12.13	37.13	0.475	0.525	0.2	4.535	1.945	1.04
2-Mar-90	6.7	2.99	27.99	0.475	0.525	0.2	4.535	1.945	1.04
3-Mar-90	6.7	2.99	27.99	0.475	0.35	0.1	4.535	2.04	1.08
4-Mar-90	6.7	2.99	27.99	0.475	0.55	0.115	4.535	2.145	1.355
5-Mar-90	6.7	2.99	27.99	0.475	0.55	0.115	4.535	2.145	1.355
6-Mar-90	6.4	2.71	27.71	0.475	0.55	0.115	4.535	2.145	1.355
7-Mar-90	6.4	2.71	27.71	0.475	0.55	0.115	4.535	2.145	1.355
8-Mar-90	6.4	2.71	27.71	0.475	0.55	0.115	4.535	2.145	1.355
9-Mar-90	6.4	2.71	27.71	0.475	0.55	0.115	4.535	2.145	1.355
10-Mar-90	6.4	2.71	27.71	0.475	0.55	0.115	4.535	2.145	1.355
11-Mar-90	6.4	2.71	27.71	0.45	0.55	0.115	3.8	2.145	1.355
12-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
13-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
14-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
15-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
16-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
17-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
18-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
19-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
20-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
21-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
22-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
23-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
24-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
25-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
26-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
27-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
28-Mar-90	6.2	2.44	27.44	0.35	0.55	0.115	2.975	2.145	1.355
29-Mar-90	6.7	2.99	27.99	0.35	0.55	0.115	2.975	2.145	1.355
30-Mar-90	7.6	3.88	28.88	0.35	0.55	0.115	2.975	2.145	1.355
31-Mar-90	5.9	2.18	27.18	0.35	0.55	0.115	2.975	2.145	1.355
1-Apr-90	7.9	8.81	33.81	0.35	0.55	0.115	2.975	2.145	1.355
2-Apr-90	9.2	10.11	35.11	0.35	0.55	0.115	2.975	2.145	1.355
3-Apr-90	9.5	10.46	35.46	0.35	0.55	0.115	2.975	2.145	1.355
4-Apr-90	9.5	10.46	35.46	0.35	0.55	0.115	2.975	2.145	1.355
5-Apr-90	9.5	10.46	35.46	0.35	0.55	0.115	2.975	2.145	1.355
6-Apr-90	10.2	11.16	36.16	0.35	0.55	0.115	2.975	2.145	1.355
7-Apr-90	10.2	11.16	36.16	0.35	0.55	0.115	2.975	2.145	1.355
8-Apr-90	10.2	11.16	36.16	0.35	0.55	0.115	2.975	2.145	1.355
9-Apr-90	10.2	11.16	36.16	0.35	0.75	0.13	2.975	2.25	1.63
10-Apr-90	8.5	9.44	34.44	0.35	0.525	0.11	2.975	1.875	1.0095
11-Apr-90	7.9	8.59	33.59	0.35	0.525	0.11	2.975	1.875	1.0095
12-Apr-90	8.2	8.90	33.90	0.35	0.525	0.11	2.975	1.875	1.0095
13-Apr-90	7.3	7.99	32.99	0.35	0.525	0.11	2.975	1.875	1.0095
14-Apr-90	7.0	7.69	32.69	0.35	0.525	0.11	2.975	1.875	1.0095
15-Apr-90	7.0	7.69	32.69	0.35	0.525	0.11	2.975	1.875	1.0095
16-Apr-90	7.0	7.69	32.69	0.35	0.525	0.11	2.975	1.875	1.0095
17-Apr-90	7.0	7.69	32.69	0.25	0.525	0.11	2.15	1.875	1.0095
18-Apr-90	14.3	14.97	39.97	0.4	0.525	0.11	3.24	1.875	1.0095
19-Apr-90	14.3	14.97	39.97	0.4	0.525	0.11	3.24	1.875	1.0095
20-Apr-90	14.7	15.40	40.40	0.4	0.525	0.11	3.24	1.875	1.0095
21-Apr-90	28.0	36.18	61.18	0.4	0.525	0.11	3.24	1.875	1.0095
22-Apr-90	39.0	47.18	72.18	0.4	0.525	0.11	3.24	1.875	1.0095
23-Apr-90	51.3	59.45	84.45	0.4	0.525	0.11	3.24	1.875	1.0095
24-Apr-90	33.6	41.78	66.78	0.4	0.525	0.11	3.24	1.875	1.0095
25-Apr-90	18.1	26.26	51.26	0.4	0.525	0.11	3.24	1.875	1.0095
26-Apr-90	16.1	24.30	49.30	0.4	0.525	0.11	3.24	1.875	1.0095

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
27-Apr-90	14.3	22.46	47.46	0.4	0.525	0.11	3.24	1.875	1.0095
28-Apr-90	14.7	22.90	47.90	0.4	0.525	0.11	3.24	1.875	1.0095
29-Apr-90	14.3	22.46	47.46	0.4	0.525	0.11	3.24	1.875	1.0095
30-Apr-90	16.1	24.30	49.30	0.4	0.525	0.11	3.24	1.875	1.0095
1-May-90	15.2	205.44	230.44	0.4	0.525	0.11	3.24	1.875	1.0095
2-May-90	17.1	207.34	232.34	0.4	0.525	0.11	3.24	1.875	1.0095
3-May-90	19.1	209.38	234.38	0.4	0.525	0.11	3.24	1.875	1.0095
4-May-90	22.4	212.69	237.69	0.4	0.525	0.11	3.24	1.875	1.0095
5-May-90	32.9	223.13	248.13	0.4	0.525	0.11	3.24	1.875	1.0095
6-May-90	25.4	215.69	240.69	0.55	0.3	0.09	4.33	1.5	0.39
7-May-90	16.6	206.84	231.84	0.4	0.3	0.07	4.015	1.295	0.275
8-May-90	14.3	204.54	229.54	0.4	0.3	0.07	4.015	1.295	0.275
9-May-90	19.1	209.38	234.38	0.4	0.3	0.07	4.015	1.295	0.275
10-May-90	17.6	207.83	232.83	0.4	0.3	0.07	4.015	1.295	0.275
11-May-90	18.1	141.89	166.89	0.4	0.3	0.07	4.015	1.295	0.275
12-May-90	18.6	142.40	167.40	0.4	0.3	0.07	4.015	1.295	0.275
13-May-90	19.1	142.92	167.92	0.4	0.3	0.07	4.015	1.295	0.275
14-May-90	20.2	143.99	168.99	0.4	0.3	0.07	4.015	1.295	0.275
15-May-90	20.7	144.54	169.54	0.4	0.3	0.07	4.015	1.295	0.275
16-May-90	20.2	143.99	168.99	0.4	0.3	0.07	4.015	1.295	0.275
17-May-90	19.6	143.45	168.45	0.4	0.3	0.07	4.015	1.295	0.275
18-May-90	20.7	144.54	169.54	0.4	0.3	0.07	4.015	1.295	0.275
19-May-90	20.7	144.54	169.54	0.4	0.3	0.07	4.015	1.295	0.275
20-May-90	18.6	142.40	167.40	0.4	0.3	0.07	4.015	1.295	0.275
21-May-90	23.0	103.54	128.54	0.4	0.3	0.07	4.015	1.295	0.275
22-May-90	25.4	105.96	130.96	0.4	0.3	0.07	4.015	1.295	0.275
23-May-90	30.7	111.26	136.26	0.4	0.3	0.07	4.015	1.295	0.275
24-May-90	29.3	109.87	134.87	0.4	0.3	0.07	4.015	1.295	0.275
25-May-90	25.4	105.96	130.96	0.4	0.3	0.07	4.015	1.295	0.275
26-May-90	23.6	104.12	129.12	0.4	0.3	0.07	4.015	1.295	0.275
27-May-90	21.8	102.37	127.37	0.4	0.3	0.07	4.015	1.295	0.275
28-May-90	21.8	102.37	127.37	0.4	0.3	0.07	4.015	1.295	0.275
29-May-90	21.3	101.81	126.81	0.4	0.3	0.07	4.015	1.295	0.275
30-May-90	21.3	101.81	126.81	0.4	0.3	0.07	4.015	1.295	0.275
31-May-90	20.9	97.76	122.76	0.4	0.3	0.07	4.015	1.295	0.275
1-Jun-90	17.1	93.89	118.89	0.4	0.3	0.07	4.015	1.295	0.275
2-Jun-90	16.6	93.39	118.39	0.4	0.3	0.07	4.015	1.295	0.275
3-Jun-90	14.7	91.52	116.52	0.25	0.3	0.07	3.7	1.295	0.275
4-Jun-90	14.5	91.31	116.31	0.325	0.3	0.07	4.25	1.295	0.275

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
5-Jun-90	14.5	91.31	116.31	0.325	0.3	0.05	4.25	1.09	0.16
6-Jun-90	17.6	94.37	119.37	0.325	0.325	0.05	4.25	0.7795	0.138
7-Jun-90	23.0	99.82	124.82	0.325	0.325	0.05	4.25	0.7795	0.138
8-Jun-90	20.2	96.99	121.99	0.325	0.325	0.05	4.25	0.7795	0.138
9-Jun-90	19.1	95.92	120.92	0.325	0.325	0.05	4.25	0.7795	0.138
10-Jun-90	20.2	83.35	108.35	0.325	0.325	0.05	4.25	0.7795	0.138
11-Jun-90	23.6	86.77	111.77	0.325	0.325	0.05	4.25	0.7795	0.138
12-Jun-90	50.3	113.49	138.49	0.325	0.325	0.05	4.25	0.7795	0.12
13-Jun-90	42.3	105.47	130.47	0.325	0.325	0.055	4.25	0.7795	0.1265
14-Jun-90	25.4	88.60	113.60	0.325	0.325	0.055	4.25	0.7795	0.1265
15-Jun-90	26.1	89.24	114.24	0.325	0.325	0.055	4.25	0.7795	0.1265
16-Jun-90	31.4	94.60	119.60	0.325	0.325	0.055	4.25	0.7795	0.1265
17-Jun-90	30.0	93.20	118.20	0.325	0.325	0.055	4.25	0.7795	0.1265
18-Jun-90	32.9	96.04	121.04	0.325	0.325	0.055	4.25	0.7795	0.1265
19-Jun-90	30.7	93.90	118.90	0.325	0.325	0.055	4.25	0.7795	0.1265
20-Jun-90	30.0	72.70	97.70	0.325	0.325	0.055	4.25	0.7795	0.1265
21-Jun-90	28.0	70.67	95.67	0.325	0.325	0.055	4.25	0.7795	0.1265
22-Jun-90	28.7	71.33	96.33	0.325	0.325	0.055	4.25	0.7795	0.1265
23-Jun-90	33.6	76.27	101.27	0.325	0.325	0.055	4.25	0.7795	0.1265
24-Jun-90	30.0	72.70	97.70	0.325	0.325	0.055	4.25	0.7795	0.1265
25-Jun-90	28.7	71.33	96.33	0.325	0.325	0.055	4.25	0.7795	0.1265
26-Jun-90	28.0	70.67	95.67	0.325	0.325	0.055	4.25	0.7795	0.1265
27-Jun-90	26.1	68.73	93.73	0.325	0.325	0.055	4.25	0.7795	0.1265
28-Jun-90	27.3	70.02	95.02	0.325	0.325	0.055	4.25	0.7795	0.1265
29-Jun-90	26.7	69.37	94.37	0.325	0.325	0.055	4.25	0.7795	0.1265
30-Jun-90	23.0	68.30	93.30	0.325	0.325	0.055	4.25	0.7795	0.1265
1-Jul-90	31.4	76.72	101.72	0.325	0.325	0.055	4.25	0.7795	0.1265
2-Jul-90	26.7	71.99	96.99	0.325	0.325	0.055	4.25	0.7795	0.1265
3-Jul-90	23.6	68.89	93.89	0.325	0.325	0.055	4.25	0.7795	0.1265
4-Jul-90	23.0	68.30	93.30	0.325	0.325	0.055	4.25	0.7795	0.1265
5-Jul-90	22.4	67.72	92.72	0.325	0.325	0.055	4.25	0.7795	0.1265
6-Jul-90	22.4	67.72	92.72	0.325	0.325	0.055	4.25	0.7795	0.1265
7-Jul-90	23.6	68.89	93.89	0.325	0.325	0.055	4.25	0.7795	0.1265
8-Jul-90	24.2	69.49	94.49	0.325	0.325	0.055	4.25	0.7795	0.1265
9-Jul-90	23.0	68.30	93.30	0.325	0.325	0.055	4.25	0.7795	0.1265
10-Jul-90	22.4	58.21	83.21	0.325	0.325	0.055	4.25	0.7795	0.1265
11-Jul-90	21.8	57.63	82.63	0.325	0.325	0.055	4.25	0.7795	0.1265
12-Jul-90	24.8	60.59	85.59	0.325	0.325	0.055	4.25	0.7795	0.1265
13-Jul-90	24.8	60.59	85.59	0.325	0.325	0.055	4.25	0.7795	0.1265

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
14-Jul-90	25.4	61.21	86.21	0.4	0.35	0.06	4.8	0.469	0.14
15-Jul-90	31.4	67.21	92.21	0.375	0.375	0.055	5.05	0.4385	0.1435
16-Jul-90	31.4	67.21	92.21	0.375	0.375	0.055	5.05	0.4385	0.1435
17-Jul-90	28.7	64.44	89.44	0.375	0.375	0.055	5.05	0.4385	0.1435
18-Jul-90	27.3	63.13	88.13	0.375	0.375	0.055	5.05	0.4385	0.1435
19-Jul-90	27.3	63.13	88.13	0.375	0.375	0.055	5.05	0.4385	0.1435
20-Jul-90	26.1	52.50	77.50	0.375	0.375	0.055	5.05	0.4385	0.1435
21-Jul-90	25.4	51.86	76.86	0.375	0.375	0.055	5.05	0.4385	0.1435
22-Jul-90	25.1	51.56	76.56	0.375	0.375	0.055	5.05	0.4385	0.1435
23-Jul-90	25.1	51.56	76.56	0.375	0.375	0.055	5.05	0.4385	0.1435
24-Jul-90	25.1	51.56	76.56	0.375	0.375	0.055	5.05	0.4385	0.1435
25-Jul-90	24.5	50.95	75.95	0.375	0.375	0.055	5.05	0.4385	0.1435
26-Jul-90	24.2	50.63	75.63	0.375	0.375	0.055	5.05	0.4385	0.1435
27-Jul-90	27.3	53.78	78.78	0.375	0.375	0.055	5.05	0.4385	0.1435
28-Jul-90	37.4	63.83	88.83	0.375	0.375	0.055	5.05	0.4385	0.1435
29-Jul-90	31.4	57.86	82.86	0.375	0.375	0.055	5.05	0.4385	0.1435
30-Jul-90	31.4	66.89	91.89	0.375	0.375	0.055	5.05	0.4385	0.1435
31-Jul-90	29.3	64.81	89.81	0.375	0.375	0.055	5.05	0.4385	0.1435
1-Aug-90	34.3	69.79	94.79	0.375	0.375	0.055	5.05	0.4385	0.1435
2-Aug-90	20.2	55.64	80.64	0.375	0.375	0.055	5.05	0.4385	0.1435
3-Aug-90	19.1	54.58	79.58	0.375	0.375	0.055	5.05	0.4385	0.1435
4-Aug-90	21.8	57.31	82.31	0.375	0.375	0.055	5.05	0.4385	0.1435
5-Aug-90	27.3	62.81	87.81	0.375	0.375	0.055	5.05	0.4385	0.1435
6-Aug-90	27.3	62.81	87.81	0.375	0.375	0.055	5.05	0.4385	0.1435
7-Aug-90	28.0	63.46	88.46	0.375	0.375	0.055	5.05	0.4385	0.1435
8-Aug-90	28.0	63.46	88.46	0.375	0.375	0.055	5.05	0.4385	0.1435
9-Aug-90	25.4	63.75	88.75	0.375	0.375	0.055	5.05	0.4385	0.1435
10-Aug-90	24.8	63.13	88.13	0.375	0.375	0.055	5.05	0.4385	0.1435
11-Aug-90	23.6	61.92	86.92	0.375	0.375	0.055	5.05	0.4385	0.1435
12-Aug-90	26.7	65.02	90.02	0.375	0.375	0.055	5.05	0.4385	0.1435
13-Aug-90	31.4	69.75	94.75	0.375	0.375	0.055	5.05	0.4385	0.1435
14-Aug-90	21.3	59.60	84.60	0.375	0.375	0.055	5.05	0.4385	0.1435
15-Aug-90	19.1	57.43	82.43	0.375	0.375	0.055	5.05	0.4385	0.1435
16-Aug-90	18.6	56.92	81.92	0.375	0.375	0.055	5.05	0.4385	0.1435
17-Aug-90	19.6	57.97	82.97	0.375	0.375	0.055	5.05	0.4385	0.1435
18-Aug-90	19.6	57.97	82.97	0.375	0.375	0.055	5.05	0.4385	0.1435
19-Aug-90	19.6	34.28	59.28	0.375	0.375	0.055	5.05	0.4385	0.1435
20-Aug-90	19.6	34.28	59.28	0.375	0.375	0.055	5.05	0.4385	0.1435
21-Aug-90	19.6	34.28	59.28	0.375	0.375	0.055	5.05	0.4385	0.1435

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
22-Aug-90	22.4	37.06	62.06	0.375	0.375	0.055	5.05	0.4385	0.1435
23-Aug-90	25.4	40.06	65.06	0.375	0.375	0.055	5.05	0.4385	0.1435
24-Aug-90	23.0	37.64	62.64	0.375	0.375	0.055	5.05	0.4385	0.1435
25-Aug-90	23.6	38.23	63.23	0.35	0.4	0.055	5.3	0.408	0.1435
26-Aug-90	28.7	43.29	68.29	0.3	0.4	0.055	4.365	0.449	0.1435
27-Aug-90	30.7	45.36	70.36	0.3	0.4	0.055	4.365	0.449	0.1435
28-Aug-90	32.1	46.78	71.78	0.3	0.4	0.055	4.365	0.449	0.1435
29-Aug-90	31.4	65.84	90.84	0.3	0.4	0.055	4.365	0.449	0.1435
30-Aug-90	29.3	63.76	88.76	0.3	0.4	0.05	4.365	0.449	0.15
31-Aug-90	23.0	57.42	82.42	0.3	0.4	0.045	4.365	0.449	0.154
1-Sep-90	19.1	53.52	78.52	0.3	0.4	0.045	4.365	0.449	0.154
2-Sep-90	24.2	58.61	83.61	0.3	0.4	0.045	4.365	0.449	0.154
3-Sep-90	23.0	57.42	82.42	0.3	0.4	0.045	4.365	0.449	0.154
4-Sep-90	21.8	56.26	81.26	0.3	0.4	0.045	4.365	0.449	0.154
5-Sep-90	18.6	53.01	78.01	0.3	0.4	0.045	4.365	0.449	0.154
6-Sep-90	17.1	51.49	76.49	0.3	0.4	0.045	4.365	0.449	0.154
7-Sep-90	17.6	51.97	76.97	0.3	0.4	0.045	4.365	0.449	0.154
8-Sep-90	18.1	53.98	78.98	0.3	0.4	0.045	4.365	0.449	0.154
9-Sep-90	19.1	55.01	80.01	0.25	0.4	0.045	3.43	0.49	0.154
10-Sep-90	17.6	53.46	78.46	0.225	0.425	0.045	3.365	0.5925	0.154
11-Sep-90	17.1	52.98	77.98	0.225	0.425	0.045	3.365	0.5925	0.154
12-Sep-90	17.1	52.98	77.98	0.225	0.425	0.045	3.365	0.5925	0.154
13-Sep-90	19.1	55.01	80.01	0.225	0.425	0.045	3.365	0.5925	0.154
14-Sep-90	26.7	62.60	87.60	0.225	0.425	0.045	3.365	0.5925	0.154
15-Sep-90	35.8	71.75	96.75	0.225	0.425	0.04	3.365	0.5925	0.16
16-Sep-90	39.0	74.90	99.90	0.225	0.425	0.045	3.365	0.5925	0.163
17-Sep-90	39.8	75.70	100.70	0.225	0.425	0.045	3.365	0.5925	0.163
18-Sep-90	38.2	75.92	100.92	0.225	0.425	0.045	3.365	0.5925	0.163
19-Sep-90	34.3	72.06	97.06	0.225	0.425	0.045	3.365	0.5925	0.163
20-Sep-90	31.4	69.16	94.16	0.225	0.425	0.045	3.365	0.5925	0.163
21-Sep-90	26.7	64.42	89.42	0.225	0.425	0.045	3.365	0.5925	0.163
22-Sep-90	22.4	60.16	85.16	0.225	0.425	0.045	3.365	0.5925	0.163
23-Sep-90	20.7	58.46	83.46	0.225	0.425	0.045	3.365	0.5925	0.163
24-Sep-90	18.6	56.32	81.32	0.225	0.425	0.045	3.365	0.5925	0.163
25-Sep-90	16.1	53.84	78.84	0.225	0.425	0.045	3.365	0.5925	0.163
26-Sep-90	15.2	52.91	77.91	0.225	0.425	0.045	3.365	0.5925	0.163
27-Sep-90	13.4	51.14	76.14	0.225	0.425	0.045	3.365	0.5925	0.163
28-Sep-90	13.0	37.61	62.61	0.225	0.425	0.045	3.365	0.5925	0.163
29-Sep-90	16.1	40.74	65.74	0.225	0.425	0.045	3.365	0.5925	0.163

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
30-Sep-90	31.4	56.06	81.06	0.225	0.425	0.045	3.365	0.5925	0.163
1-Oct-90	32.9	44.37	69.37	0.225	0.425	0.045	3.365	0.5925	0.163
2-Oct-90	32.1	43.65	68.65	0.225	0.425	0.045	3.365	0.5925	0.163
3-Oct-90	31.1	42.59	67.59	0.225	0.425	0.045	3.365	0.5925	0.163
4-Oct-90	29.3	40.85	65.85	0.225	0.425	0.045	3.365	0.5925	0.163
5-Oct-90	28.7	40.17	65.17	0.225	0.425	0.045	3.365	0.5925	0.163
6-Oct-90	29.0	40.52	65.52	0.225	0.425	0.045	3.365	0.5925	0.163
7-Oct-90	29.0	40.52	65.52	0.225	0.425	0.045	3.365	0.5925	0.163
8-Oct-90	28.7	40.59	65.59	0.225	0.425	0.045	3.365	0.5925	0.163
9-Oct-90	30.7	42.66	67.66	0.225	0.425	0.045	3.365	0.5925	0.163
10-Oct-90	30.4	42.31	67.31	0.225	0.425	0.045	3.365	0.5925	0.163
11-Oct-90	29.7	41.61	66.61	0.225	0.425	0.045	3.365	0.5925	0.163
12-Oct-90	29.3	41.28	66.28	0.225	0.425	0.045	3.365	0.5925	0.163
13-Oct-90	29.3	41.28	66.28	0.225	0.425	0.045	3.365	0.5925	0.163
14-Oct-90	29.3	41.28	66.28	0.225	0.425	0.045	3.365	0.5925	0.163
15-Oct-90	29.3	41.28	66.28	0.225	0.425	0.045	3.365	0.5925	0.163
16-Oct-90	26.1	37.99	62.99	0.225	0.425	0.045	3.365	0.5925	0.163
17-Oct-90	22.1	34.06	59.06	0.225	0.425	0.045	3.365	0.5925	0.163
18-Oct-90	22.1	31.65	56.65	0.225	0.425	0.045	3.365	0.5925	0.163
19-Oct-90	22.1	31.65	56.65	0.225	0.425	0.045	3.365	0.5925	0.163
20-Oct-90	21.6	31.08	56.08	0.2	0.425	0.045	3.3	0.5925	0.163
21-Oct-90	19.6	29.16	54.16	0.225	0.425	0.045	3	0.5925	0.163
22-Oct-90	7.4	16.96	41.96	0.225	0.425	0.045	3	0.5925	0.163
23-Oct-90	16.6	26.10	51.10	0.225	0.425	0.045	3	0.5925	0.163
24-Oct-90	16.6	26.10	51.10	0.225	0.425	0.045	3	0.5925	0.163
25-Oct-90	17.3	26.85	51.85	0.225	0.45	0.045	3	0.695	0.163
26-Oct-90	17.3	26.85	51.85	0.225	0.525	0.045	3	0.737	0.163
27-Oct-90	16.1	25.63	50.63	0.225	0.525	0.05	3	0.737	0.17
28-Oct-90	15.6	27.82	52.82	0.225	0.525	0.055	3	0.737	0.1815
29-Oct-90	15.9	28.05	53.05	0.225	0.525	0.055	3	0.737	0.1815
30-Oct-90	15.6	27.82	52.82	0.225	0.525	0.055	3	0.737	0.1815
31-Oct-90	15.9	28.05	53.05	0.225	0.525	0.055	3	0.737	0.1815
1-Nov-90	15.2	27.37	52.37	0.225	0.525	0.055	3	0.737	0.1815
2-Nov-90	15.4	27.59	52.59	0.225	0.525	0.055	3	0.737	0.1815
3-Nov-90	13.8	26.02	51.02	0.225	0.525	0.055	3	0.737	0.1815
4-Nov-90	12.4	24.55	49.55	0.225	0.525	0.055	3	0.737	0.1815
5-Nov-90	13.6	25.80	50.80	0.225	0.525	0.055	3	0.737	0.1815
6-Nov-90	13.2	25.39	50.39	0.225	0.525	0.055	3	0.737	0.1815
7-Nov-90	13.8	29.15	54.15	0.225	0.525	0.055	3	0.737	0.1815

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
8-Nov-90	13.6	28.93	53.93	0.225	0.525	0.055	3	0.737	0.1815
9-Nov-90	11.4	26.70	51.70	0.225	0.525	0.055	3	0.737	0.1815
10-Nov-90	14.3	29.60	54.60	0.225	0.525	0.055	3	0.737	0.1815
11-Nov-90	8.5	23.85	48.85	0.225	0.6	0.06	3	0.779	0.20
12-Nov-90	11.0	26.31	51.31	0.225	0.575	0.085	3	0.8095	0.243
13-Nov-90	12.6	27.88	52.88	0.225	0.575	0.085	3	0.8095	0.243
14-Nov-90	12.8	28.10	53.10	0.225	0.575	0.085	3	0.8095	0.243
15-Nov-90	12.6	27.88	52.88	0.225	0.575	0.085	3	0.8095	0.243
16-Nov-90	11.0	26.31	51.31	0.225	0.575	0.085	3	0.8095	0.243
17-Nov-90	14.3	27.44	52.44	0.225	0.575	0.085	3	0.8095	0.243
18-Nov-90	13.6	26.77	51.77	0.225	0.575	0.085	3	0.8095	0.243
19-Nov-90	14.0	27.21	52.21	0.25	0.575	0.085	2.7	0.8095	0.243
20-Nov-90	13.4	26.57	51.57	0.275	0.575	0.085	3.05	0.8095	0.243
21-Nov-90	14.9	28.11	53.11	0.275	0.575	0.085	3.05	0.8095	0.243
22-Nov-90	15.2	28.34	53.34	0.275	0.575	0.085	3.05	0.8095	0.243
23-Nov-90	13.0	26.14	51.14	0.275	0.575	0.085	3.05	0.8095	0.243
24-Nov-90	15.6	28.79	53.79	0.275	0.575	0.085	3.05	0.8095	0.243
25-Nov-90	14.7	27.87	52.87	0.275	0.575	0.085	3.05	0.8095	0.243
26-Nov-90	13.4	26.57	51.57	0.275	0.575	0.085	3.05	0.8095	0.243
27-Nov-90	13.4	26.03	51.03	0.275	0.575	0.085	3.05	0.8095	0.243
28-Nov-90	12.2	24.78	49.78	0.275	0.575	0.085	3.05	0.8095	0.243
29-Nov-90	13.8	26.45	51.45	0.275	0.575	0.085	3.05	0.8095	0.243
30-Nov-90	13.6	26.23	51.23	0.275	0.575	0.085	3.05	0.8095	0.243
1-Dec-90	11.0	23.61	48.61	0.275	0.575	0.085	3.05	0.8095	0.243
2-Dec-90	9.5	22.16	47.16	0.275	0.575	0.085	3.05	0.8095	0.243
3-Dec-90	9.9	22.51	47.51	0.275	0.575	0.085	3.05	0.8095	0.243
4-Dec-90	8.5	21.15	46.15	0.275	0.575	0.085	3.05	0.8095	0.243
5-Dec-90	11.0	23.61	48.61	0.275	0.575	0.085	3.05	0.8095	0.243
6-Dec-90	14.3	26.90	51.90	0.275	0.575	0.085	3.05	0.8095	0.243
7-Dec-90	13.0	26.24	51.24	0.275	0.575	0.085	3.05	0.8095	0.243
8-Dec-90	10.2	23.50	48.50	0.3	0.575	0.085	3.4	0.8095	0.243
9-Dec-90	11.0	24.25	49.25	0.25	0.575	0.085	2.83	0.8095	0.243
10-Dec-90	10.2	23.50	48.50	0.25	0.575	0.085	2.83	0.8095	0.243
11-Dec-90	10.6	23.87	48.87	0.25	0.55	0.11	2.83	0.84	0.29
12-Dec-90	9.5	22.80	47.80	0.25	0.6	0.145	2.83	1.11	0.3975
13-Dec-90	9.9	23.15	48.15	0.25	0.6	0.145	2.83	1.11	0.3975
14-Dec-90	9.5	22.80	47.80	0.25	0.6	0.145	2.83	1.11	0.3975
15-Dec-90	9.5	22.80	47.80	0.25	0.6	0.145	2.83	1.11	0.3975
16-Dec-90	8.5	21.79	46.79	0.25	0.6	0.145	2.83	1.11	0.3975

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
17-Dec-90	8.2	21.18	46.18	0.25	0.6	0.145	2.83	1.11	0.3975
18-Dec-90	9.5	22.52	47.52	0.25	0.6	0.145	2.83	1.11	0.3975
19-Dec-90	8.2	21.18	46.18	0.25	0.6	0.145	2.83	1.11	0.3975
20-Dec-90	7.0	19.97	44.97	0.25	0.6	0.145	2.83	1.11	0.3975
21-Dec-90	6.7	19.68	44.68	0.25	0.6	0.145	2.83	1.11	0.3975
22-Dec-90	7.3	20.27	45.27	0.25	0.6	0.145	2.83	1.11	0.3975
23-Dec-90	7.3	20.27	45.27	0.25	0.6	0.145	2.83	1.11	0.3975
24-Dec-90	7.0	19.97	44.97	0.25	0.6	0.145	2.83	1.11	0.3975
25-Dec-90	6.7	19.68	44.68	0.25	0.6	0.145	2.83	1.11	0.3975
26-Dec-90	6.4	19.40	44.40	0.25	0.6	0.145	2.83	1.11	0.3975
27-Dec-90	6.7	19.39	44.39	0.25	0.6	0.145	2.83	1.11	0.3975
28-Dec-90	6.4	19.11	44.11	0.25	0.6	0.145	2.83	1.11	0.3975
29-Dec-90	6.4	19.11	44.11	0.25	0.6	0.145	2.83	1.11	0.3975
30-Dec-90	6.4	19.11	44.11	0.25	0.6	0.145	2.83	1.11	0.3975
31-Dec-90	7.0	19.68	44.68	0.25	0.6	0.145	2.83	1.11	0.3975
1-Jan-91	7.0	18.27	43.27	0.25	0.6	0.145	2.83	1.11	0.3975
2-Jan-91	8.9	20.14	45.14	0.25	0.6	0.145	2.83	1.11	0.3975
3-Jan-91	10.6	21.89	46.89	0.25	0.6	0.145	2.83	1.11	0.3975
4-Jan-91	12.6	23.84	48.84	0.25	0.6	0.145	2.83	1.11	0.3975
5-Jan-91	12.2	23.44	48.44	0.25	0.6	0.145	2.83	1.11	0.3975
6-Jan-91	13.4	24.69	49.69	0.25	0.6	0.145	2.83	1.11	0.3975
7-Jan-91	13.8	25.11	50.11	0.25	0.6	0.145	2.83	1.11	0.3975
8-Jan-91	10.6	21.89	46.89	0.25	0.6	0.145	2.83	1.11	0.3975
9-Jan-91	9.9	21.17	46.17	0.25	0.6	0.145	2.83	1.11	0.3975
10-Jan-91	13.0	24.26	49.26	0.2	0.6	0.145	2.26	1.11	0.3975
11-Jan-91	12.6	23.84	48.84	0.195	0.6	0.145	2.075	1.11	0.3975
12-Jan-91	11.4	22.66	47.66	0.195	0.6	0.145	2.075	1.11	0.3975
13-Jan-91	11.4	22.66	47.66	0.195	0.6	0.145	2.075	1.11	0.3975
14-Jan-91	13.0	24.26	49.26	0.195	0.6	0.145	2.075	1.11	0.3975
15-Jan-91	14.7	25.99	50.99	0.195	0.6	0.145	2.075	1.11	0.3975
16-Jan-91	13.8	25.11	50.11	0.195	0.6	0.145	2.075	1.11	0.3975
17-Jan-91	13.8	25.11	50.11	0.195	0.6	0.145	2.075	1.11	0.3975
18-Jan-91	13.8	25.11	50.11	0.195	0.6	0.145	2.075	1.11	0.3975
19-Jan-91	13.0	24.26	49.26	0.195	0.6	0.145	2.075	1.11	0.3975
20-Jan-91	10.2	21.52	46.52	0.195	0.65	0.18	2.075	1.38	0.51
21-Jan-91	9.2	20.47	45.47	0.195	0.625	0.215	2.075	1.425	0.875
22-Jan-91	9.5	20.82	45.82	0.195	0.625	0.215	2.075	1.425	0.875
23-Jan-91	9.9	21.17	46.17	0.195	0.625	0.215	2.075	1.425	0.875
24-Jan-91	10.2	21.52	46.52	0.195	0.625	0.215	2.075	1.425	0.875

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
25-Jan-91	10.2	21.52	46.52	0.195	0.625	0.215	2.075	1.425	0.875
26-Jan-91	10.2	21.52	46.52	0.195	0.625	0.215	2.075	1.425	0.875
27-Jan-91	10.6	21.89	46.89	0.195	0.625	0.215	2.075	1.425	0.875
28-Jan-91	10.2	21.52	46.52	0.195	0.625	0.215	2.075	1.425	0.875
29-Jan-91	11.0	22.27	47.27	0.195	0.625	0.215	2.075	1.425	0.875
30-Jan-91	11.4	22.66	47.66	0.195	0.625	0.215	2.075	1.425	0.875
31-Jan-91	9.5	15.93	40.93	0.195	0.625	0.215	2.075	1.425	0.875
1-Feb-91	11.0	17.38	42.38	0.195	0.625	0.215	2.075	1.425	0.875
2-Feb-91	12.6	18.95	43.95	0.195	0.625	0.215	2.075	1.425	0.875
3-Feb-91	10.2	16.63	41.63	0.195	0.625	0.215	2.075	1.425	0.875
4-Feb-91	9.2	15.58	40.58	0.195	0.625	0.215	2.075	1.425	0.875
5-Feb-91	8.9	15.25	40.25	0.19	0.6	0.215	1.89	1.47	0.875
6-Feb-91	9.5	15.93	40.93	0.13	0.525	0.215	1.2495	1.435	0.875
7-Feb-91	7.9	14.28	39.28	0.13	0.525	0.215	1.2495	1.435	0.875
8-Feb-91	6.4	12.82	37.82	0.13	0.525	0.215	1.2495	1.435	0.875
9-Feb-91	8.5	14.91	39.91	0.13	0.525	0.215	1.2495	1.435	0.875
10-Feb-91	8.5	14.25	39.25	0.13	0.525	0.215	1.2495	1.435	0.875
11-Feb-91	8.5	14.25	39.25	0.13	0.525	0.215	1.2495	1.435	0.875
12-Feb-91	8.5	14.25	39.25	0.13	0.525	0.215	1.2495	1.435	0.875
13-Feb-91	8.5	14.25	39.25	0.13	0.525	0.215	1.2495	1.435	0.875
14-Feb-91	8.5	14.25	39.25	0.13	0.525	0.215	1.2495	1.435	0.875
15-Feb-91	8.5	14.25	39.25	0.13	0.525	0.215	1.2495	1.435	0.875
16-Feb-91	10.6	16.35	41.35	0.13	0.525	0.215	1.2495	1.435	0.875
17-Feb-91	8.9	14.60	39.60	0.13	0.525	0.215	1.2495	1.435	0.875
18-Feb-91	7.0	12.73	37.73	0.13	0.525	0.215	1.2495	1.435	0.875
19-Feb-91	7.0	12.73	37.73	0.13	0.525	0.215	1.2495	1.435	0.875
20-Feb-91	6.7	11.85	36.85	0.13	0.525	0.215	1.2495	1.435	0.875
21-Feb-91	6.7	11.85	36.85	0.13	0.525	0.215	1.2495	1.435	0.875
22-Feb-91	7.6	12.73	37.73	0.13	0.525	0.215	1.2495	1.435	0.875
23-Feb-91	18.6	23.73	48.73	0.13	0.525	0.215	1.2495	1.435	0.875
24-Feb-91	18.1	23.21	48.21	0.13	0.525	0.215	1.2495	1.435	0.875
25-Feb-91	27.3	32.48	57.48	0.13	0.525	0.215	1.2495	1.435	0.875
26-Feb-91	32.9	38.00	63.00	0.13	0.525	0.215	1.2495	1.435	0.875
27-Feb-91	32.9	38.00	63.00	0.13	0.525	0.215	1.2495	1.435	0.875
28-Feb-91	32.9	38.00	63.00	0.13	0.525	0.215	1.2495	1.435	0.875
1-Mar-91	18.1	23.21	48.21	0.13	0.525	0.215	1.2495	1.435	0.875
2-Mar-91	20.2	16.46	41.46	0.13	0.525	0.215	1.2495	1.435	0.875
3-Mar-91	23.0	19.29	44.29	0.13	0.525	0.215	1.2495	1.435	0.875
4-Mar-91	15.6	11.91	36.91	0.13	0.525	0.215	1.2495	1.435	0.875

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
5-Mar-91	11.4	7.66	32.66	0.13	0.525	0.215	1.2495	1.435	0.875
6-Mar-91	11.8	8.04	33.04	0.13	0.525	0.215	1.2495	1.435	0.875
7-Mar-91	16.6	12.86	37.86	0.13	0.525	0.215	1.2495	1.435	0.875
8-Mar-91	16.1	12.39	37.39	0.13	0.525	0.215	1.2495	1.435	0.875
9-Mar-91	14.3	10.56	35.56	0.13	0.525	0.215	1.2495	1.435	0.875
10-Mar-91	14.7	10.99	35.99	0.07	0.525	0.215	0.609	1.435	0.875
11-Mar-91	14.3	10.56	35.56	0.235	0.525	0.215	2.8295	1.435	0.875
12-Mar-91	13.8	10.11	35.11	0.235	0.525	0.215	2.8295	1.435	0.875
13-Mar-91	14.3	10.56	35.56	0.235	0.525	0.215	2.8295	1.435	0.875
14-Mar-91	14.3	10.56	35.56	0.235	0.45	0.25	2.8295	1.4	1.25
15-Mar-91	15.2	11.46	36.46	0.235	0.375	0.15	2.8295	1.07	0.693
16-Mar-91	13.4	9.69	34.69	0.235	0.375	0.15	2.8295	1.07	0.693
17-Mar-91	13.0	9.26	34.26	0.235	0.375	0.15	2.8295	1.07	0.693
18-Mar-91	12.6	8.84	33.84	0.235	0.375	0.15	2.8295	1.07	0.693
19-Mar-91	12.2	8.44	33.44	0.235	0.375	0.15	2.8295	1.07	0.693
20-Mar-91	11.8	8.04	33.04	0.235	0.375	0.15	2.8295	1.07	0.693
21-Mar-91	13.4	9.69	34.69	0.235	0.375	0.15	2.8295	1.07	0.693
22-Mar-91	14.7	10.99	35.99	0.235	0.375	0.15	2.8295	1.07	0.693
23-Mar-91	14.7	10.99	35.99	0.235	0.375	0.15	2.8295	1.07	0.693
24-Mar-91	14.7	10.99	35.99	0.235	0.375	0.15	2.8295	1.07	0.693
25-Mar-91	17.6	13.84	38.84	0.235	0.375	0.15	2.8295	1.07	0.693
26-Mar-91	14.3	10.56	35.56	0.235	0.375	0.15	2.8295	1.07	0.693
27-Mar-91	13.8	10.11	35.11	0.235	0.375	0.15	2.8295	1.07	0.693
28-Mar-91	11.8	8.04	33.04	0.235	0.375	0.15	2.8295	1.07	0.693
29-Mar-91	11.4	7.66	32.66	0.235	0.375	0.15	2.8295	1.07	0.693
30-Mar-91	11.4	7.66	32.66	0.235	0.375	0.15	2.8295	1.07	0.693
31-Mar-91	12.2	8.44	33.44	0.235	0.375	0.15	2.8295	1.07	0.693
1-Apr-91	19.1	20.03	45.03	0.235	0.375	0.15	2.8295	1.07	0.693
2-Apr-91	17.1	17.99	42.99	0.235	0.375	0.15	2.8295	1.07	0.693
3-Apr-91	14.5	15.41	40.41	0.235	0.375	0.15	2.8295	1.07	0.693
4-Apr-91	14.3	15.19	40.19	0.235	0.375	0.15	2.8295	1.07	0.693
5-Apr-91	16.1	17.03	42.03	0.235	0.375	0.15	2.8295	1.07	0.693
6-Apr-91	17.1	17.99	42.99	0.235	0.375	0.15	2.8295	1.07	0.693
7-Apr-91	15.9	16.78	41.78	0.235	0.375	0.15	2.8295	1.07	0.693
8-Apr-91	17.1	17.99	42.99	0.235	0.375	0.15	2.8295	1.07	0.693
9-Apr-91	18.6	19.51	44.51	0.235	0.375	0.15	2.8295	1.07	0.693
10-Apr-91	21.8	22.76	47.76	0.235	0.375	0.15	2.8295	1.07	0.693
11-Apr-91	23.3	23.99	48.99	0.235	0.375	0.15	2.8295	1.07	0.693
12-Apr-91	24.8	25.50	50.50	0.235	0.375	0.15	2.8295	1.07	0.693

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
13-Apr-91	39.0	39.69	64.69	0.235	0.375	0.15	2.8295	1.07	0.693
14-Apr-91	43.1	43.84	68.84	0.235	0.375	0.15	2.8295	1.07	0.693
15-Apr-91	41.9	42.57	67.57	0.235	0.375	0.15	2.8295	1.07	0.693
16-Apr-91	32.1	32.84	57.84	0.4	0.375	0.15	5.05	1.07	0.693
17-Apr-91	24.8	25.50	50.50	0.4	0.375	0.15	5.095	1.07	0.693
18-Apr-91	23.3	23.99	48.99	0.4	0.3	0.15	5.095	0.74	0.693
19-Apr-91	26.1	26.75	51.75	0.4	0.325	0.15	5.095	0.77	0.693
20-Apr-91	23.9	24.59	49.59	0.4	0.325	0.15	5.095	0.77	0.693
21-Apr-91	21.3	29.46	54.46	0.4	0.325	0.15	5.095	0.77	0.693
22-Apr-91	19.1	27.30	52.30	0.4	0.325	0.15	5.095	0.77	0.693
23-Apr-91	19.6	27.83	52.83	0.4	0.325	0.15	5.095	0.77	0.693
24-Apr-91	19.1	27.30	52.30	0.4	0.325	0.15	5.095	0.77	0.693
25-Apr-91	21.8	30.03	55.03	0.4	0.325	0.15	5.095	0.77	0.693
26-Apr-91	20.2	28.40	53.40	0.4	0.325	0.15	5.095	0.77	0.693
27-Apr-91	19.4	27.56	52.56	0.4	0.325	0.15	5.095	0.77	0.693
28-Apr-91	19.1	27.30	52.30	0.4	0.325	0.15	5.095	0.77	0.693
29-Apr-91	18.8	27.03	52.03	0.4	0.325	0.15	5.095	0.77	0.693
30-Apr-91	18.6	26.78	51.78	0.4	0.325	0.15	5.095	0.77	0.693
1-May-91	18.6	208.86	233.86	0.4	0.325	0.15	5.095	0.77	0.693
2-May-91	17.6	207.83	232.83	0.4	0.325	0.15	5.095	0.77	0.693
3-May-91	19.6	209.91	234.91	0.4	0.325	0.15	5.095	0.77	0.693
4-May-91	20.2	210.44	235.44	0.4	0.325	0.15	5.095	0.77	0.693
5-May-91	23.0	213.28	238.28	0.4	0.325	0.15	5.095	0.77	0.693
6-May-91	24.8	215.08	240.08	0.4	0.325	0.15	5.095	0.77	0.693
7-May-91	28.7	218.93	243.93	0.4	0.325	0.15	5.095	0.77	0.693
8-May-91	34.3	224.59	249.59	0.4	0.325	0.15	5.095	0.77	0.693
9-May-91	35.1	225.34	250.34	0.4	0.325	0.15	5.095	0.77	0.693
10-May-91	54.1	244.41	269.41	0.4	0.325	0.15	5.095	0.77	0.693
11-May-91	63.4	187.22	212.22	0.4	0.325	0.15	5.095	0.77	0.693
12-May-91	73.5	197.35	222.35	0.4	0.325	0.15	5.095	0.77	0.693
13-May-91	61.3	185.09	210.09	0.4	0.325	0.15	5.095	0.77	0.693
14-May-91	52.2	176.02	201.02	0.4	0.325	0.15	5.095	0.77	0.693
15-May-91	44.9	168.69	193.69	0.4	0.325	0.15	5.095	0.77	0.693
16-May-91	37.4	161.20	186.20	0.4	0.325	0.15	5.095	0.77	0.693
17-May-91	35.8	159.65	184.65	0.4	0.325	0.15	5.095	0.77	0.693
18-May-91	32.1	155.95	180.95	0.4	0.325	0.15	5.14	0.77	0.693
19-May-91	28.7	152.47	177.47	0.35	0.35	0.15	4.21	0.8	0.693
20-May-91	28.7	152.47	177.47	0.35	0.35	0.15	4.21	0.7205	0.693
21-May-91	32.1	112.67	137.67	0.35	0.35	0.15	4.21	0.7205	0.693

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
22-May-91	32.1	112.67	137.67	0.35	0.35	0.15	4.21	0.7205	0.693
23-May-91	28.0	108.52	133.52	0.35	0.35	0.15	4.21	0.7205	0.693
24-May-91	23.6	104.12	129.12	0.35	0.35	0.15	4.21	0.7205	0.693
25-May-91	23.6	104.12	129.12	0.35	0.35	0.15	4.21	0.7205	0.693
26-May-91	23.6	104.12	129.12	0.35	0.35	0.15	4.21	0.7205	0.693
27-May-91	23.0	103.54	128.54	0.35	0.35	0.15	4.21	0.7205	0.693
28-May-91	23.0	103.54	128.54	0.35	0.35	0.15	4.21	0.7205	0.693
29-May-91	24.2	104.72	129.72	0.35	0.35	0.15	4.21	0.7205	0.693
30-May-91	27.3	107.87	132.87	0.35	0.35	0.15	4.21	0.7205	0.693
31-May-91	26.1	102.87	127.87	0.35	0.35	0.15	4.21	0.7205	0.693
1-Jun-91	28.7	105.47	130.47	0.35	0.35	0.15	4.21	0.7205	0.693
2-Jun-91	22.4	99.24	124.24	0.35	0.35	0.15	4.21	0.7205	0.693
3-Jun-91	21.3	98.09	123.09	0.35	0.35	0.15	4.21	0.7205	0.693
4-Jun-91	25.4	102.24	127.24	0.35	0.35	0.15	4.21	0.7205	0.693
5-Jun-91	26.1	102.87	127.87	0.35	0.35	0.15	4.21	0.7205	0.693
6-Jun-91	23.6	100.41	125.41	0.35	0.35	0.15	4.21	0.7205	0.693
7-Jun-91	23.0	99.82	124.82	0.35	0.35	0.15	4.21	0.7205	0.693
8-Jun-91	24.8	101.62	126.62	0.35	0.35	0.15	4.21	0.7205	0.693
9-Jun-91	27.0	103.84	128.84	0.35	0.35	0.15	4.21	0.7205	0.693
10-Jun-91	25.4	88.60	113.60	0.35	0.35	0.05	4.21	0.641	0.14
11-Jun-91	25.4	88.60	113.60	0.35	0.35	0.065	4.21	0.6685	0.1395
12-Jun-91	27.7	90.85	115.85	0.35	0.35	0.065	4.21	0.6685	0.1395
13-Jun-91	28.7	91.84	116.84	0.35	0.35	0.065	4.21	0.6685	0.1395
14-Jun-91	28.7	91.84	116.84	0.35	0.35	0.065	4.21	0.6685	0.1395
15-Jun-91	29.0	92.19	117.19	0.35	0.35	0.065	4.21	0.6685	0.1395
16-Jun-91	32.9	96.04	121.04	0.35	0.35	0.065	4.21	0.6685	0.1395
17-Jun-91	30.7	93.90	118.90	0.35	0.35	0.065	4.21	0.6685	0.1395
18-Jun-91	27.3	90.52	115.52	0.35	0.35	0.065	4.21	0.6685	0.1395
19-Jun-91	26.4	89.55	114.55	0.35	0.35	0.065	4.21	0.6685	0.1395
20-Jun-91	25.4	68.10	93.10	0.35	0.35	0.065	4.21	0.6685	0.1395
21-Jun-91	25.4	68.10	93.10	0.35	0.35	0.065	4.21	0.6685	0.1395
22-Jun-91	25.7	68.42	93.42	0.3	0.35	0.065	3.28	0.696	0.1395
23-Jun-91	26.1	68.73	93.73	0.275	0.325	0.065	3.2	0.6645	0.1395
24-Jun-91	26.1	68.73	93.73	0.275	0.325	0.065	3.2	0.6645	0.1395
25-Jun-91	26.1	68.73	93.73	0.275	0.325	0.065	3.2	0.6645	0.1395
26-Jun-91	26.1	68.73	93.73	0.275	0.325	0.065	3.2	0.6645	0.1395
27-Jun-91	26.7	69.37	94.37	0.275	0.325	0.065	3.2	0.6645	0.1395
28-Jun-91	27.3	70.02	95.02	0.275	0.325	0.065	3.2	0.6645	0.1395
29-Jun-91	35.8	78.52	103.52	0.275	0.325	0.065	3.2	0.6645	0.1395

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
30-Jun-91	37.4	82.69	107.69	0.275	0.325	0.08	3.2	0.6645	0.14
1-Jul-91	21.8	67.14	92.14	0.275	0.325	0.065	3.2	0.6645	0.1175
2-Jul-91	21.8	67.14	92.14	0.275	0.325	0.065	3.2	0.6645	0.1175
3-Jul-91	24.2	69.49	94.49	0.275	0.325	0.065	3.2	0.6645	0.1175
4-Jul-91	22.4	67.72	92.72	0.275	0.325	0.065	3.2	0.6645	0.1175
5-Jul-91	24.2	69.49	94.49	0.275	0.325	0.065	3.2	0.6645	0.1175
6-Jul-91	26.7	71.99	96.99	0.275	0.325	0.065	3.2	0.6645	0.1175
7-Jul-91	30.0	75.32	100.32	0.275	0.325	0.065	3.2	0.6645	0.1175
8-Jul-91	32.9	78.15	103.15	0.275	0.325	0.065	3.2	0.6645	0.1175
9-Jul-91	27.3	72.64	97.64	0.275	0.325	0.065	3.2	0.6645	0.1175
10-Jul-91	30.7	66.51	91.51	0.275	0.325	0.065	3.2	0.6645	0.1175
11-Jul-91	30.0	65.81	90.81	0.275	0.325	0.065	3.2	0.6645	0.1175
12-Jul-91	28.0	63.78	88.78	0.275	0.325	0.065	3.2	0.6645	0.1175
13-Jul-91	30.0	65.81	90.81	0.275	0.325	0.065	3.2	0.6645	0.1175
14-Jul-91	27.3	63.13	88.13	0.275	0.325	0.065	3.2	0.6645	0.1175
15-Jul-91	25.4	61.21	86.21	0.275	0.325	0.065	3.2	0.6645	0.1175
16-Jul-91	27.3	63.13	88.13	0.275	0.325	0.065	3.2	0.6645	0.1175
17-Jul-91	26.1	61.84	86.84	0.275	0.325	0.065	3.2	0.6645	0.1175
18-Jul-91	24.8	60.59	85.59	0.275	0.3	0.065	3.2	0.633	0.1175
19-Jul-91	23.0	58.79	83.79	0.25	0.3	0.065	3.12	0.6245	0.1175
20-Jul-91	25.4	51.86	76.86	0.375	0.3	0.065	4.685	0.6245	0.1175
21-Jul-91	19.6	46.08	71.08	0.375	0.3	0.065	4.685	0.6245	0.1175
22-Jul-91	19.1	45.55	70.55	0.375	0.3	0.065	4.685	0.6245	0.1175
23-Jul-91	18.6	45.03	70.03	0.375	0.3	0.065	4.685	0.6245	0.1175
24-Jul-91	21.8	48.28	73.28	0.375	0.3	0.065	4.685	0.6245	0.1175
25-Jul-91	20.2	46.61	71.61	0.375	0.3	0.065	4.685	0.6245	0.1175
26-Jul-91	26.1	52.50	77.50	0.375	0.3	0.065	4.685	0.6245	0.1175
27-Jul-91	17.6	44.00	69.00	0.375	0.3	0.065	4.685	0.6245	0.1175
28-Jul-91	14.3	40.71	65.71	0.375	0.3	0.065	4.685	0.6245	0.1175
29-Jul-91	15.2	41.61	66.61	0.375	0.3	0.065	4.685	0.6245	0.1175
30-Jul-91	21.3	56.74	81.74	0.375	0.3	0.065	4.685	0.6245	0.1175
31-Jul-91	38.2	73.66	98.66	0.375	0.3	0.065	4.685	0.6245	0.1175
1-Aug-91	20.7	56.19	81.19	0.375	0.3	0.065	4.685	0.6245	0.1175
2-Aug-91	24.8	60.28	85.28	0.375	0.3	0.05	4.685	0.616	0.10
3-Aug-91	27.3	62.81	87.81	0.5	0.3	0.05	6.25	0.625	0.135
4-Aug-91	20.2	55.64	80.64	0.375	0.375	0.05	4.925	0.6565	0.135
5-Aug-91	24.8	60.28	85.28	0.375	0.375	0.05	4.925	0.6565	0.135
6-Aug-91	31.4	66.89	91.89	0.375	0.375	0.05	4.925	0.6565	0.135
7-Aug-91	39.0	74.46	99.46	0.375	0.375	0.05	4.925	0.6565	0.135

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
8-Aug-91	55.1	90.61	115.61	0.375	0.375	0.05	4.925	0.6565	0.135
9-Aug-91	67.8	106.12	131.12	0.375	0.375	0.05	4.925	0.6565	0.135
10-Aug-91	62.3	100.65	125.65	0.375	0.375	0.05	4.925	0.6565	0.135
11-Aug-91	52.2	90.53	115.53	0.375	0.375	0.05	4.925	0.6565	0.135
12-Aug-91	56.1	94.45	119.45	0.375	0.375	0.05	4.925	0.6565	0.135
13-Aug-91	53.2	91.50	116.50	0.375	0.375	0.05	4.925	0.6565	0.135
14-Aug-91	50.3	88.63	113.63	0.375	0.375	0.05	4.925	0.6565	0.135
15-Aug-91	33.6	71.92	96.92	0.375	0.375	0.05	4.925	0.6565	0.135
16-Aug-91	27.3	65.67	90.67	0.25	0.375	0.05	3.6	0.6565	0.135
17-Aug-91	28.7	66.98	91.98	0.215	0.375	0.05	2.85	0.6565	0.135
18-Aug-91	31.4	69.75	94.75	0.215	0.375	0.05	2.85	0.6565	0.135
19-Aug-91	35.1	49.71	74.71	0.215	0.375	0.05	2.85	0.6565	0.135
20-Aug-91	57.1	71.78	96.78	0.215	0.375	0.05	2.85	0.6565	0.135
21-Aug-91	36.6	51.24	76.24	0.215	0.375	0.05	2.85	0.6565	0.135
22-Aug-91	52.2	66.84	91.84	0.215	0.375	0.05	2.85	0.6565	0.135
23-Aug-91	52.2	66.84	91.84	0.215	0.375	0.05	2.85	0.6565	0.135
24-Aug-91	55.1	69.78	94.78	0.215	0.375	0.05	2.85	0.6565	0.135
25-Aug-91	51.3	65.89	90.89	0.215	0.375	0.05	2.85	0.6565	0.135
26-Aug-91	55.1	69.78	94.78	0.215	0.375	0.05	2.85	0.6565	0.135
27-Aug-91	51.3	65.89	90.89	0.215	0.375	0.05	2.85	0.6565	0.135
28-Aug-91	67.8	82.43	107.43	0.215	0.375	0.05	2.85	0.6565	0.135
29-Aug-91	89.8	124.21	149.21	0.215	0.375	0.05	2.85	0.6565	0.135
30-Aug-91	65.6	99.99	124.99	0.215	0.375	0.05	2.85	0.6565	0.135
31-Aug-91	62.3	96.74	121.74	0.215	0.375	0.05	2.85	0.6565	0.135
1-Sep-91	58.2	92.58	117.58	0.215	0.375	0.05	2.85	0.6565	0.135
2-Sep-91	58.2	92.58	117.58	0.215	0.375	0.05	2.85	0.6565	0.135
3-Sep-91	58.2	92.58	117.58	0.215	0.375	0.05	2.85	0.6565	0.135
4-Sep-91	58.2	92.58	117.58	0.215	0.375	0.05	2.85	0.6565	0.135
5-Sep-91	58.2	92.58	117.58	0.215	0.375	0.05	2.85	0.6565	0.135
6-Sep-91	58.2	92.58	117.58	0.215	0.375	0.05	2.85	0.6565	0.135
7-Sep-91	58.2	92.58	117.58	0.215	0.375	0.05	2.85	0.6565	0.135
8-Sep-91	58.2	94.07	119.07	0.215	0.375	0.05	2.85	0.6565	0.135
9-Sep-91	58.2	94.07	119.07	0.215	0.375	0.05	2.85	0.6565	0.135
10-Sep-91	54.0	89.91	114.91	0.18	0.375	0.05	2.1	0.6565	0.135
11-Sep-91	40.3	76.26	101.26	0.29	0.375	0.05	3.5	0.6565	0.135
12-Sep-91	40.3	76.26	101.26	0.29	0.375	0.05	3.5	0.6565	0.135
13-Sep-91	40.3	76.26	101.26	0.29	0.375	0.05	3.5	0.6565	0.135
14-Sep-91	40.3	76.26	101.26	0.29	0.375	0.05	3.5	0.6565	0.135
15-Sep-91	40.3	76.26	101.26	0.29	0.45	0.05	3.5	0.688	0.135

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
16-Sep-91	40.3	76.26	101.26	0.29	0.425	0.05	3.5	0.7	0.135
17-Sep-91	40.3	76.26	101.26	0.29	0.425	0.05	3.5	0.7	0.135
18-Sep-91	40.3	78.08	103.08	0.29	0.425	0.05	3.5	0.7	0.135
19-Sep-91	40.3	78.08	103.08	0.29	0.425	0.05	3.5	0.7	0.135
20-Sep-91	40.3	78.08	103.08	0.29	0.425	0.05	3.5	0.7	0.135
21-Sep-91	40.3	78.08	103.08	0.29	0.425	0.05	3.5	0.7	0.135
22-Sep-91	40.3	78.08	103.08	0.29	0.425	0.05	3.5	0.7	0.135
23-Sep-91	40.3	78.08	103.08	0.29	0.425	0.05	3.5	0.7	0.135
24-Sep-91	40.3	78.08	103.08	0.29	0.425	0.05	3.5	0.7	0.135
25-Sep-91	40.3	78.08	103.08	0.29	0.4	0.05	3.5	0.712	0.17
26-Sep-91	40.3	78.08	103.08	0.29	0.4	0.045	3.5	0.694	0.179
27-Sep-91	40.3	78.08	103.08	0.29	0.4	0.045	3.5	0.694	0.179
28-Sep-91	40.3	64.99	89.99	0.29	0.4	0.045	3.5	0.694	0.179
29-Sep-91	40.3	64.99	89.99	0.29	0.4	0.045	3.5	0.694	0.179
30-Sep-91	40.3	64.99	89.99	0.29	0.4	0.045	3.5	0.694	0.179
1-Oct-91	26.7	38.20	63.20	0.29	0.4	0.045	3.5	0.694	0.179
2-Oct-91	22.4	33.94	58.94	0.29	0.4	0.045	3.5	0.694	0.179
3-Oct-91	33.6	45.10	70.10	0.29	0.4	0.045	3.5	0.694	0.179
4-Oct-91	37.4	48.90	73.90	0.29	0.4	0.045	3.5	0.694	0.179
5-Oct-91	38.6	50.10	75.10	0.29	0.4	0.045	3.5	0.694	0.179
6-Oct-91	38.2	49.70	74.70	0.29	0.4	0.045	3.5	0.694	0.179
7-Oct-91	36.2	47.74	72.74	0.29	0.4	0.045	3.5	0.694	0.179
8-Oct-91	45.3	57.24	82.24	0.29	0.4	0.045	3.5	0.694	0.179
9-Oct-91	41.4	53.38	78.38	0.29	0.4	0.045	3.5	0.694	0.179
10-Oct-91	25.4	37.36	62.36	0.29	0.4	0.045	3.5	0.694	0.179
11-Oct-91	22.1	34.06	59.06	0.29	0.4	0.045	3.5	0.694	0.179
12-Oct-91	26.1	37.99	62.99	0.29	0.4	0.045	3.5	0.694	0.179
13-Oct-91	26.1	37.99	62.99	0.29	0.4	0.045	3.5	0.694	0.179
14-Oct-91	23.6	35.53	60.53	0.29	0.4	0.045	3.5	0.694	0.179
15-Oct-91	22.1	34.06	59.06	0.29	0.4	0.045	3.5	0.694	0.179
16-Oct-91	19.1	31.04	56.04	0.29	0.4	0.045	3.5	0.694	0.179
17-Oct-91	16.6	28.51	53.51	0.29	0.4	0.045	3.5	0.694	0.179
18-Oct-91	28.0	37.51	62.51	0.29	0.4	0.045	3.5	0.694	0.179
19-Oct-91	32.9	42.38	67.38	0.29	0.4	0.045	3.5	0.694	0.179
20-Oct-91	34.3	43.85	68.85	0.29	0.4	0.045	3.5	0.694	0.179
21-Oct-91	34.7	44.23	69.23	0.29	0.4	0.045	3.5	0.694	0.179
22-Oct-91	34.7	44.23	69.23	0.29	0.4	0.045	3.5	0.694	0.179
23-Oct-91	37.4	46.91	71.91	0.29	0.4	0.045	3.5	0.694	0.179
24-Oct-91	19.1	28.63	53.63	0.29	0.4	0.045	3.5	0.694	0.179

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
25-Oct-91	13.4	22.93	47.93	0.29	0.4	0.045	3.5	0.694	0.179
26-Oct-91	13.8	23.35	48.35	0.29	0.4	0.04	3.5	0.676	0.19
27-Oct-91	13.8	23.35	48.35	0.4	0.45	0.09	4.9	0.868	0.296
28-Oct-91	14.3	26.47	51.47	0.425	0.45	0.09	5.025	0.868	0.296
29-Oct-91	17.3	29.52	54.52	0.425	0.45	0.09	5.025	0.868	0.296
30-Oct-91	16.3	28.54	53.54	0.425	0.45	0.09	5.025	0.868	0.296
31-Oct-91	15.2	27.37	52.37	0.425	0.45	0.09	5.025	0.868	0.296
1-Nov-91	39.0	51.19	76.19	0.425	0.45	0.09	5.025	0.868	0.296
2-Nov-91	50.3	62.50	87.50	0.425	0.45	0.09	5.025	0.868	0.296
3-Nov-91	49.8	62.04	87.04	0.425	0.45	0.09	5.025	0.868	0.296
4-Nov-91	47.5	59.74	84.74	0.425	0.45	0.09	5.025	0.868	0.296
5-Nov-91	47.5	59.74	84.74	0.425	0.45	0.09	5.025	0.868	0.296
6-Nov-91	41.9	54.07	79.07	0.425	0.45	0.09	5.025	0.868	0.296
7-Nov-91	21.3	36.60	61.60	0.425	0.45	0.09	5.025	0.868	0.296
8-Nov-91	11.0	26.31	51.31	0.425	0.45	0.09	5.025	0.868	0.296
9-Nov-91	8.2	23.53	48.53	0.45	0.5	0.09	5.15	1.06	0.296
10-Nov-91	9.2	24.51	49.51	0.285	0.475	0.09	3.19	1.055	0.296
11-Nov-91	7.6	22.91	47.91	0.285	0.475	0.09	3.19	1.055	0.296
12-Nov-91	12.6	27.88	52.88	0.285	0.475	0.09	3.19	1.055	0.296
13-Nov-91	26.1	41.38	66.38	0.285	0.475	0.09	3.19	1.055	0.296
14-Nov-91	23.6	38.91	63.91	0.285	0.475	0.09	3.19	1.055	0.296
15-Nov-91	23.0	38.33	63.33	0.285	0.475	0.09	3.19	1.055	0.296
16-Nov-91	29.7	45.00	70.00	0.285	0.475	0.09	3.19	1.055	0.296
17-Nov-91	35.8	49.01	74.01	0.285	0.475	0.09	3.19	1.055	0.296
18-Nov-91	28.0	41.16	66.16	0.285	0.475	0.09	3.19	1.055	0.296
19-Nov-91	31.4	44.59	69.59	0.285	0.475	0.09	3.19	1.055	0.296
20-Nov-91	31.4	44.59	69.59	0.285	0.475	0.09	3.19	1.055	0.296
21-Nov-91	12.2	25.32	50.32	0.285	0.475	0.09	3.19	1.055	0.296
22-Nov-91	13.8	26.99	51.99	0.285	0.475	0.09	3.19	1.055	0.296
23-Nov-91	10.2	23.41	48.41	0.285	0.475	0.09	3.19	1.055	0.296
24-Nov-91	15.2	28.34	53.34	0.285	0.475	0.09	3.19	1.055	0.296
25-Nov-91	12.2	25.32	50.32	0.285	0.475	0.09	3.19	1.055	0.296
26-Nov-91	8.9	22.02	47.02	0.285	0.475	0.09	3.19	1.055	0.296
27-Nov-91	5.6	18.26	43.26	0.285	0.475	0.09	3.19	1.055	0.296
28-Nov-91	5.4	18.01	43.01	0.285	0.475	0.09	3.19	1.055	0.296
29-Nov-91	13.4	26.03	51.03	0.285	0.475	0.09	3.19	1.055	0.296
30-Nov-91	10.2	22.86	47.86	0.285	0.475	0.09	3.19	1.055	0.296
1-Dec-91	5.5	18.13	43.13	0.285	0.475	0.09	3.19	1.055	0.296
2-Dec-91	6.7	19.33	44.33	0.285	0.475	0.09	3.19	1.055	0.296

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
3-Dec-91	7.9	20.51	45.51	0.285	0.475	0.09	3.19	1.055	0.296
4-Dec-91	9.2	21.81	46.81	0.285	0.475	0.09	3.19	1.055	0.296
5-Dec-91	10.8	23.43	48.43	0.285	0.475	0.09	3.19	1.055	0.296
6-Dec-91	12.4	24.98	49.98	0.285	0.475	0.09	3.19	1.055	0.296
7-Dec-91	14.3	27.54	52.54	0.285	0.475	0.09	3.19	1.055	0.296
8-Dec-91	16.1	29.37	54.37	0.285	0.475	0.09	3.19	1.055	0.296
9-Dec-91	18.3	31.59	56.59	0.285	0.475	0.09	3.19	1.055	0.296
10-Dec-91	20.4	33.70	58.70	0.285	0.475	0.09	3.19	1.055	0.296
11-Dec-91	23.0	36.27	61.27	0.285	0.475	0.09	3.19	1.055	0.296
12-Dec-91	25.4	38.69	63.69	0.285	0.475	0.09	3.19	1.055	0.296
13-Dec-91	28.3	41.59	66.59	0.285	0.475	0.09	3.19	1.055	0.296
14-Dec-91	31.1	44.34	69.34	0.285	0.475	0.09	3.19	1.055	0.296
15-Dec-91	34.3	47.59	72.59	0.12	0.475	0.09	1.23	1.055	0.296
16-Dec-91	35.8	49.10	74.10	0.235	0.475	0.09	2.715	1.055	0.296
17-Dec-91	32.9	45.83	70.83	0.235	0.475	0.09	2.715	1.055	0.296
18-Dec-91	35.1	48.05	73.05	0.235	0.475	0.09	2.715	1.055	0.296
19-Dec-91	16.6	29.55	54.55	0.235	0.475	0.09	2.715	1.055	0.296
20-Dec-91	14.7	27.68	52.68	0.235	0.475	0.09	2.715	1.055	0.296
21-Dec-91	13.4	26.38	51.38	0.235	0.475	0.09	2.715	1.055	0.296
22-Dec-91	8.2	21.18	46.18	0.235	0.475	0.09	2.715	1.055	0.296
23-Dec-91	11.0	23.97	48.97	0.235	0.45	0.09	2.715	1.05	0.296
24-Dec-91	20.2	33.15	58.15	0.235	0.375	0.09	2.715	1	0.296
25-Dec-91	28.0	40.97	65.97	0.235	0.375	0.09	2.715	1	0.296
26-Dec-91	27.3	40.32	65.32	0.235	0.375	0.09	2.715	1	0.296
27-Dec-91	31.4	44.11	69.11	0.235	0.375	0.09	2.715	1	0.296
28-Dec-91	34.3	47.01	72.01	0.235	0.375	0.09	2.715	1	0.296
29-Dec-91	31.2	43.84	68.84	0.235	0.375	0.09	2.715	1	0.296
30-Dec-91	31.2	43.84	68.84	0.235	0.375	0.09	2.715	1	0.296
31-Dec-91	31.2	43.84	68.84	0.235	0.375	0.09	2.715	1	0.296
1-Jan-92	28.0	39.27	64.27	0.235	0.375	0.09	2.715	1	0.296
2-Jan-92	28.0	39.27	64.27	0.235	0.375	0.09	2.715	1	0.296
3-Jan-92	23.3	34.57	59.57	0.235	0.375	0.09	2.715	1	0.296
4-Jan-92	19.1	30.39	55.39	0.235	0.3	0.14	2.715	0.95	0.41
5-Jan-92	15.4	26.67	51.67	0.35	0.275	0.145	4.2	1.085	0.4525
6-Jan-92	12.2	23.44	48.44	0.35	0.275	0.145	3.95	1.085	0.4525
7-Jan-92	8.9	20.14	45.14	0.35	0.275	0.145	3.95	1.085	0.4525
8-Jan-92	14.7	25.99	50.99	0.35	0.275	0.145	3.95	1.085	0.4525
9-Jan-92	23.0	34.29	59.29	0.35	0.275	0.145	3.95	1.085	0.4525
10-Jan-92	32.9	44.14	69.14	0.35	0.275	0.145	3.95	1.085	0.4525

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
11-Jan-92	32.1	43.42	68.42	0.35	0.275	0.145	3.95	1.085	0.4525
12-Jan-92	34.3	45.61	70.61	0.35	0.275	0.145	3.95	1.085	0.4525
13-Jan-92	27.3	38.62	63.62	0.35	0.275	0.145	3.95	1.085	0.4525
14-Jan-92	21.3	32.56	57.56	0.35	0.275	0.145	3.95	1.085	0.4525
15-Jan-92	23.0	34.29	59.29	0.35	0.275	0.145	3.95	1.085	0.4525
16-Jan-92	16.1	27.39	52.39	0.35	0.275	0.145	3.95	1.085	0.4525
17-Jan-92	13.8	25.11	50.11	0.35	0.275	0.145	3.95	1.085	0.4525
18-Jan-92	13.0	24.26	49.26	0.35	0.275	0.145	3.95	1.085	0.4525
19-Jan-92	10.6	21.89	46.89	0.35	0.275	0.145	3.95	1.085	0.4525
20-Jan-92	8.2	19.49	44.49	0.35	0.275	0.145	3.95	1.085	0.4525
21-Jan-92	7.9	19.17	44.17	0.35	0.275	0.145	3.95	1.085	0.4525
22-Jan-92	7.6	18.87	43.87	0.35	0.275	0.145	3.95	1.085	0.4525
23-Jan-92	18.1	29.36	54.36	0.35	0.275	0.145	3.95	1.085	0.4525
24-Jan-92	20.2	31.46	56.46	0.35	0.275	0.145	3.95	1.085	0.4525
25-Jan-92	17.1	28.36	53.36	0.35	0.275	0.145	3.95	1.085	0.4525
26-Jan-92	15.6	26.91	51.91	0.35	0.275	0.145	3.95	1.085	0.4525
27-Jan-92	15.2	26.46	51.46	0.35	0.275	0.145	3.95	1.085	0.4525
28-Jan-92	16.1	27.39	52.39	0.35	0.275	0.145	3.95	1.085	0.4525
29-Jan-92	21.3	32.56	57.56	0.35	0.275	0.145	3.95	1.085	0.4525
30-Jan-92	20.2	31.46	56.46	0.35	0.275	0.145	3.95	1.085	0.4525
31-Jan-92	13.8	20.22	45.22	0.35	0.275	0.145	3.95	1.085	0.4525
1-Feb-92	8.2	14.60	39.60	0.35	0.275	0.145	3.95	1.085	0.4525
2-Feb-92	8.2	14.60	39.60	0.35	0.275	0.145	3.95	1.085	0.4525
3-Feb-92	7.9	14.28	39.28	0.35	0.275	0.145	3.95	1.085	0.4525
4-Feb-92	8.5	14.92	39.92	0.35	0.275	0.145	3.95	1.085	0.4525
5-Feb-92	12.6	18.95	43.95	0.35	0.275	0.145	3.95	1.085	0.4525
6-Feb-92	21.3	27.67	52.67	0.35	0.275	0.145	3.95	1.085	0.4525
7-Feb-92	30.0	36.42	61.42	0.35	0.275	0.145	3.95	1.085	0.4525
8-Feb-92	30.0	36.42	61.42	0.35	0.275	0.145	3.95	1.085	0.4525
9-Feb-92	31.4	37.82	62.82	0.35	0.275	0.145	3.95	1.085	0.4525
10-Feb-92	30.0	35.76	60.76	0.35	0.275	0.145	3.95	1.085	0.4525
11-Feb-92	30.0	35.76	60.76	0.35	0.275	0.145	3.95	1.085	0.4525
12-Feb-92	28.7	34.40	59.40	0.35	0.275	0.145	3.95	1.085	0.4525
13-Feb-92	11.4	17.11	42.11	0.35	0.275	0.145	3.95	1.085	0.4525
14-Feb-92	16.1	21.85	46.85	0.35	0.275	0.145	3.95	1.085	0.4525
15-Feb-92	11.0	16.73	41.73	0.35	0.275	0.145	3.95	1.085	0.4525
16-Feb-92	10.6	16.35	41.35	0.35	0.275	0.145	3.95	1.085	0.4525
17-Feb-92	9.2	14.93	39.93	0.35	0.275	0.145	3.95	1.085	0.4525
18-Feb-92	6.7	12.45	37.45	0.35	0.25	0.145	3.7	1.22	0.4525

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
19-Feb-92	9.2	14.93	39.93	0.22	0.3	0.145	2.254	1.39	0.4525
20-Feb-92	51.3	56.40	81.40	0.22	0.3	0.145	2.254	1.39	0.4525
21-Feb-92	46.6	51.78	76.78	0.22	0.3	0.145	2.254	1.39	0.4525
22-Feb-92	35.1	40.21	65.21	0.22	0.3	0.145	2.254	1.39	0.4525
23-Feb-92	32.9	38.00	63.00	0.22	0.3	0.145	2.254	1.39	0.4525
24-Feb-92	31.4	36.56	61.56	0.22	0.3	0.145	2.254	1.39	0.4525
25-Feb-92	38.2	43.33	68.33	0.22	0.3	0.145	2.254	1.39	0.4525
26-Feb-92	32.1	37.28	62.28	0.22	0.3	0.145	2.254	1.39	0.4525
27-Feb-92	17.1	22.21	47.21	0.22	0.3	0.145	2.254	1.39	0.4525
28-Feb-92	11.4	16.51	41.51	0.22	0.3	0.145	2.254	1.39	0.4525
29-Feb-92	8.5	13.66	38.66	0.22	0.3	0.145	2.254	1.39	0.4525
1-Mar-92	8.5	4.81	29.81	0.22	0.3	0.145	2.254	1.39	0.4525
2-Mar-92	7.6	3.88	28.88	0.22	0.3	0.145	2.254	1.39	0.4525
3-Mar-92	8.2	4.49	29.49	0.22	0.3	0.145	2.254	1.39	0.4525
4-Mar-92	14.3	10.56	35.56	0.22	0.3	0.145	2.254	1.39	0.4525
5-Mar-92	44.0	40.29	65.29	0.22	0.3	0.145	2.254	1.39	0.4525
6-Mar-92	39.0	35.28	60.28	0.09	0.35	0.15	0.808	1.56	0.50
7-Mar-92	36.6	32.89	57.89	0.145	0.3	0.09	1.099	1.448	0.2975
8-Mar-92	37.4	33.68	58.68	0.145	0.3	0.09	1.099	1.448	0.2975
9-Mar-92	35.8	32.13	57.13	0.145	0.3	0.09	1.099	1.448	0.2975
10-Mar-92	37.4	33.68	58.68	0.145	0.3	0.09	1.099	1.448	0.2975
11-Mar-92	32.9	29.14	54.14	0.145	0.3	0.09	1.099	1.448	0.2975
12-Mar-92	11.4	7.66	32.66	0.145	0.3	0.09	1.099	1.448	0.2975
13-Mar-92	8.5	4.81	29.81	0.145	0.3	0.09	1.099	1.448	0.2975
14-Mar-92	7.1	3.43	28.43	0.145	0.3	0.09	1.099	1.448	0.2975
15-Mar-92	6.7	2.99	27.99	0.145	0.3	0.09	1.099	1.448	0.2975
16-Mar-92	10.2	6.53	31.53	0.145	0.3	0.09	1.099	1.448	0.2975
17-Mar-92	12.2	8.44	33.44	0.145	0.3	0.09	1.099	1.448	0.2975
18-Mar-92	13.4	9.69	34.69	0.145	0.3	0.09	1.099	1.448	0.2975
19-Mar-92	24.2	20.48	45.48	0.145	0.3	0.09	1.099	1.448	0.2975
20-Mar-92	23.0	19.29	44.29	0.145	0.3	0.09	1.099	1.448	0.2975
21-Mar-92	26.1	22.34	47.34	0.145	0.3	0.09	1.099	1.448	0.2975
22-Mar-92	27.3	23.63	48.63	0.145	0.3	0.09	1.099	1.448	0.2975
23-Mar-92	28.0	24.28	49.28	0.145	0.3	0.09	1.099	1.448	0.2975
24-Mar-92	29.3	25.63	50.63	0.145	0.3	0.09	1.099	1.448	0.2975
25-Mar-92	27.3	23.63	48.63	0.145	0.3	0.09	1.099	1.448	0.2975
26-Mar-92	14.7	10.99	35.99	0.145	0.3	0.09	1.099	1.448	0.2975
27-Mar-92	16.6	12.86	37.86	0.145	0.3	0.09	1.099	1.448	0.2975
28-Mar-92	15.2	11.46	36.46	0.145	0.3	0.09	1.099	1.448	0.2975

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
29-Mar-92	16.1	12.39	37.39	0.145	0.3	0.09	1.099	1.448	0.2975
30-Mar-92	21.8	18.13	43.13	0.145	0.3	0.09	1.099	1.448	0.2975
31-Mar-92	17.1	17.99	42.99	0.145	0.3	0.09	1.099	1.448	0.2975
1-Apr-92	12.6	13.48	38.48	0.145	0.3	0.09	1.099	1.448	0.2975
2-Apr-92	28.0	28.91	53.91	0.145	0.3	0.09	1.099	1.448	0.2975
3-Apr-92	34.3	35.24	60.24	0.145	0.3	0.09	1.099	1.448	0.2975
4-Apr-92	34.3	35.24	60.24	0.145	0.3	0.09	1.099	1.448	0.2975
5-Apr-92	34.3	35.24	60.24	0.145	0.3	0.09	1.099	1.448	0.2975
6-Apr-92	30.7	31.64	56.64	0.145	0.3	0.09	1.099	1.448	0.2975
7-Apr-92	32.1	33.06	58.06	0.145	0.25	0.09	1.099	1.336	0.2975
8-Apr-92	32.1	33.06	58.06	0.145	0.325	0.09	1.099	0.985	0.2975
9-Apr-92	11.8	12.68	37.68	0.145	0.325	0.09	1.099	0.985	0.2975
10-Apr-92	7.9	8.59	33.59	0.145	0.325	0.09	1.099	0.985	0.2975
11-Apr-92	7.1	7.84	32.84	0.145	0.325	0.09	1.099	0.985	0.2975
12-Apr-92	7.4	8.14	33.14	0.145	0.325	0.09	1.099	0.985	0.2975
13-Apr-92	8.5	9.22	34.22	0.145	0.325	0.09	1.099	0.985	0.2975
14-Apr-92	9.0	9.72	34.72	0.145	0.325	0.09	1.099	0.985	0.2975
15-Apr-92	17.6	18.25	43.25	0.145	0.325	0.09	1.099	0.985	0.2975
16-Apr-92	28.0	28.69	53.69	0.145	0.325	0.09	1.099	0.985	0.2975
17-Apr-92	38.2	38.89	63.89	0.145	0.325	0.09	1.099	0.985	0.2975
18-Apr-92	30.0	30.72	55.72	0.145	0.325	0.09	1.099	0.985	0.2975
19-Apr-92	24.8	25.50	50.50	0.145	0.325	0.09	1.099	0.985	0.2975
20-Apr-92	24.8	33.00	58.00	0.2	0.325	0.09	1.39	0.985	0.2975
21-Apr-92	24.2	32.38	57.38	0.17	0.325	0.09	1.895	0.985	0.2975
22-Apr-92	29.3	37.53	62.53	0.17	0.325	0.09	1.895	0.985	0.2975
23-Apr-92	24.2	32.38	57.38	0.17	0.325	0.09	1.895	0.985	0.2975
24-Apr-92	21.8	30.03	55.03	0.17	0.325	0.09	1.895	0.985	0.2975
25-Apr-92	26.1	34.25	59.25	0.17	0.325	0.09	1.895	0.985	0.2975
26-Apr-92	31.4	39.61	64.61	0.17	0.325	0.09	1.895	0.985	0.2975
27-Apr-92	63.4	71.60	96.60	0.17	0.325	0.09	1.895	0.985	0.2975
28-Apr-92	53.2	61.36	86.36	0.17	0.325	0.09	1.895	0.985	0.2975
29-Apr-92	47.5	55.73	80.73	0.17	0.325	0.09	1.895	0.985	0.2975
30-Apr-92	39.8	230.06	255.06	0.17	0.325	0.09	1.895	0.985	0.2975
1-May-92	43.7	233.94	258.94	0.17	0.325	0.09	1.895	0.985	0.2975
2-May-92	43.7	233.94	258.94	0.17	0.325	0.09	1.895	0.985	0.2975
3-May-92	43.7	233.94	258.94	0.17	0.325	0.09	1.895	0.985	0.2975
4-May-92	43.7	233.94	258.94	0.17	0.325	0.09	1.895	0.985	0.2975
5-May-92	43.7	233.94	258.94	0.17	0.325	0.09	1.895	0.985	0.2975
6-May-92	43.7	233.94	258.94	0.17	0.325	0.09	1.895	0.985	0.2975

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
7-May-92	43.7	233.94	258.94	0.17	0.325	0.09	1.895	0.985	0.2975
8-May-92	43.7	233.94	258.94	0.17	0.325	0.09	1.895	0.985	0.2975
9-May-92	43.7	233.94	258.94	0.17	0.325	0.09	1.895	0.985	0.2975
10-May-92	43.7	167.48	192.48	0.17	0.325	0.09	1.895	0.985	0.2975
11-May-92	43.7	167.48	192.48	0.17	0.325	0.09	1.895	0.985	0.2975
12-May-92	43.7	167.48	192.48	0.17	0.325	0.09	1.895	0.985	0.2975
13-May-92	43.7	167.48	192.48	0.17	0.325	0.09	1.895	0.985	0.2975
14-May-92	43.7	167.48	192.48	0.17	0.325	0.09	1.895	0.985	0.2975
15-May-92	43.7	167.48	192.48	0.17	0.325	0.09	1.895	0.985	0.2975
16-May-92	43.7	167.48	192.48	0.17	0.325	0.09	1.895	0.985	0.2975
17-May-92	47.5	171.35	196.35	0.14	0.325	0.09	2.4	0.985	0.2975
18-May-92	43.6	167.39	192.39	0.245	0.325	0.09	3.525	0.985	0.2975
19-May-92	44.0	167.82	192.82	0.245	0.325	0.09	3.525	0.985	0.2975
20-May-92	41.4	121.97	146.97	0.245	0.325	0.09	3.525	0.985	0.2975
21-May-92	35.1	115.61	140.61	0.245	0.325	0.09	3.525	0.985	0.2975
22-May-92	35.1	115.61	140.61	0.245	0.325	0.09	3.525	0.985	0.2975
23-May-92	29.0	109.57	134.57	0.245	0.325	0.09	3.525	0.985	0.2975
24-May-92	29.0	109.57	134.57	0.245	0.325	0.09	3.525	0.985	0.2975
25-May-92	23.0	103.54	128.54	0.245	0.325	0.09	3.525	0.985	0.2975
26-May-92	29.3	109.87	134.87	0.245	0.325	0.09	3.525	0.985	0.2975
27-May-92	37.0	117.54	142.54	0.245	0.325	0.09	3.525	0.985	0.2975
28-May-92	51.3	131.79	156.79	0.245	0.4	0.09	3.525	0.634	0.2975
29-May-92	44.0	124.54	149.54	0.245	0.325	0.09	3.525	0.6655	0.2975
30-May-92	43.6	120.39	145.39	0.245	0.325	0.09	3.525	0.6655	0.2975
31-May-92	46.6	123.46	148.46	0.245	0.325	0.09	3.525	0.6655	0.2975
1-Jun-92	44.9	121.69	146.69	0.245	0.325	0.09	3.525	0.6655	0.2975
2-Jun-92	42.3	119.11	144.11	0.245	0.325	0.09	3.525	0.6655	0.2975
3-Jun-92	43.1	119.96	144.96	0.245	0.325	0.09	3.525	0.6655	0.2975
4-Jun-92	35.1	111.89	136.89	0.245	0.325	0.09	3.525	0.6655	0.2975
5-Jun-92	19.6	96.46	121.46	0.245	0.325	0.09	3.525	0.6655	0.2975
6-Jun-92	17.6	94.37	119.37	0.35	0.325	0.09	4.65	0.6655	0.2975
7-Jun-92	16.6	93.39	118.39	0.275	0.325	0.09	2.985	0.6655	0.2975
8-Jun-92	15.6	92.44	117.44	0.275	0.325	0.09	2.985	0.6655	0.2975
9-Jun-92	14.7	77.89	102.89	0.275	0.325	0.09	2.985	0.6655	0.2975
10-Jun-92	13.8	77.00	102.00	0.275	0.325	0.09	2.985	0.6655	0.2975
11-Jun-92	14.7	77.89	102.89	0.275	0.325	0.09	2.985	0.6655	0.2975
12-Jun-92	19.1	82.29	107.29	0.275	0.325	0.09	2.985	0.6655	0.2975
13-Jun-92	19.6	82.82	107.82	0.275	0.325	0.09	2.985	0.6655	0.2975
14-Jun-92	19.6	82.82	107.82	0.275	0.325	0.09	2.985	0.6655	0.2975

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
15-Jun-92	20.2	83.35	108.35	0.275	0.325	0.09	2.985	0.6655	0.2975
16-Jun-92	17.6	80.74	105.74	0.275	0.325	0.09	2.985	0.6655	0.2975
17-Jun-92	20.7	83.90	108.90	0.275	0.325	0.09	2.985	0.6655	0.2975
18-Jun-92	17.6	80.74	105.74	0.275	0.25	0.03	2.985	0.697	0.10
19-Jun-92	17.6	60.23	85.23	0.275	0.275	0.04	2.985	0.649	0.0875
20-Jun-92	23.0	65.68	90.68	0.275	0.275	0.04	2.985	0.649	0.0875
21-Jun-92	15.6	58.30	83.30	0.275	0.275	0.04	2.985	0.649	0.0875
22-Jun-92	18.6	61.27	86.27	0.275	0.275	0.04	2.985	0.649	0.0875
23-Jun-92	24.2	66.87	91.87	0.275	0.275	0.04	2.985	0.649	0.0875
24-Jun-92	21.3	63.95	88.95	0.275	0.275	0.04	2.985	0.649	0.0875
25-Jun-92	18.6	61.27	86.27	0.275	0.275	0.04	2.985	0.649	0.0875
26-Jun-92	17.6	60.23	85.23	0.275	0.275	0.04	2.985	0.649	0.0875
27-Jun-92	18.6	61.27	86.27	0.275	0.275	0.04	2.985	0.649	0.0875
28-Jun-92	19.6	62.32	87.32	0.275	0.275	0.04	2.985	0.649	0.0875
29-Jun-92	21.3	66.57	91.57	0.275	0.275	0.04	2.985	0.649	0.0875
30-Jun-92	26.1	71.35	96.35	0.275	0.275	0.04	2.985	0.649	0.0875
1-Jul-92	26.1	71.35	96.35	0.275	0.275	0.04	2.985	0.649	0.0875
2-Jul-92	26.1	71.35	96.35	0.275	0.275	0.04	2.985	0.649	0.0875
3-Jul-92	19.1	64.40	89.40	0.275	0.275	0.04	2.985	0.649	0.0875
4-Jul-92	19.6	64.94	89.94	0.275	0.275	0.04	2.985	0.649	0.0875
5-Jul-92	13.8	59.12	84.12	0.275	0.275	0.04	2.985	0.649	0.0875
6-Jul-92	14.3	59.57	84.57	0.275	0.275	0.04	2.985	0.649	0.0875
7-Jul-92	12.2	57.45	82.45	0.275	0.275	0.04	2.985	0.649	0.0875
8-Jul-92	24.2	69.49	94.49	0.275	0.275	0.04	2.985	0.649	0.0875
9-Jul-92	40.6	76.41	101.41	0.275	0.275	0.04	2.985	0.649	0.0875
10-Jul-92	37.4	73.18	98.18	0.275	0.275	0.04	2.985	0.649	0.0875
11-Jul-92	35.8	71.63	96.63	0.275	0.275	0.04	2.985	0.649	0.0875
12-Jul-92	33.6	69.38	94.38	0.275	0.275	0.04	2.985	0.649	0.0875
13-Jul-92	38.2	73.98	98.98	0.275	0.275	0.04	2.985	0.649	0.0875
14-Jul-92	35.1	70.86	95.86	0.2	0.275	0.04	1.32	0.649	0.0875
15-Jul-92	35.1	70.86	95.86	0.275	0.275	0.04	2.96	0.649	0.0875
16-Jul-92	21.8	57.63	82.63	0.275	0.275	0.04	2.96	0.649	0.0875
17-Jul-92	21.3	57.06	82.06	0.275	0.275	0.04	2.96	0.649	0.0875
18-Jul-92	17.1	52.86	77.86	0.275	0.3	0.04	2.96	0.601	0.0875
19-Jul-92	20.7	47.16	72.16	0.275	0.325	0.04	2.96	0.5495	0.0875
20-Jul-92	20.7	47.16	72.16	0.275	0.325	0.04	2.96	0.5495	0.0875
21-Jul-92	24.2	50.63	75.63	0.275	0.325	0.04	2.96	0.5495	0.0875
22-Jul-92	30.7	57.16	82.16	0.275	0.325	0.04	2.96	0.5495	0.0875
23-Jul-92	47.5	73.98	98.98	0.275	0.325	0.04	2.96	0.5495	0.0875

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
24-Jul-92	51.3	77.70	102.70	0.275	0.325	0.04	2.96	0.5495	0.0875
25-Jul-92	52.2	78.65	103.65	0.275	0.325	0.04	2.96	0.5495	0.0875
26-Jul-92	52.2	78.65	103.65	0.275	0.325	0.04	2.96	0.5495	0.0875
27-Jul-92	53.2	79.61	104.61	0.275	0.325	0.04	2.96	0.5495	0.0875
28-Jul-92	54.1	80.58	105.58	0.275	0.325	0.04	2.96	0.5495	0.0875
29-Jul-92	50.3	85.78	110.78	0.275	0.325	0.04	2.96	0.5495	0.0875
30-Jul-92	23.0	58.48	83.48	0.275	0.325	0.04	2.96	0.5495	0.0875
31-Jul-92	21.3	56.74	81.74	0.275	0.325	0.04	2.96	0.5495	0.0875
1-Aug-92	24.8	60.28	85.28	0.275	0.325	0.04	2.96	0.5495	0.0875
2-Aug-92	17.6	53.03	78.03	0.275	0.325	0.04	2.96	0.5495	0.0875
3-Aug-92	20.7	56.19	81.19	0.275	0.325	0.04	2.96	0.5495	0.0875
4-Aug-92	20.2	55.64	80.64	0.275	0.35	0.05	2.96	0.498	0.08
5-Aug-92	27.3	62.81	87.81	0.275	0.3	0.085	2.96	0.5395	0.3155
6-Aug-92	37.4	72.86	97.86	0.275	0.3	0.085	2.96	0.5395	0.3155
7-Aug-92	43.1	78.61	103.61	0.275	0.3	0.085	2.96	0.5395	0.3155
8-Aug-92	54.1	92.47	117.47	0.275	0.3	0.085	2.96	0.5395	0.3155
9-Aug-92	46.6	84.97	109.97	0.275	0.3	0.085	2.96	0.5395	0.3155
10-Aug-92	41.4	79.77	104.77	0.275	0.3	0.085	2.96	0.5395	0.3155
11-Aug-92	38.2	76.52	101.52	0.275	0.3	0.085	2.96	0.5395	0.3155
12-Aug-92	39.0	77.32	102.32	0.275	0.3	0.085	2.96	0.5395	0.3155
13-Aug-92	26.1	64.38	89.38	0.275	0.3	0.085	2.96	0.5395	0.3155
14-Aug-92	17.1	55.40	80.40	0.275	0.3	0.085	2.96	0.5395	0.3155
15-Aug-92	19.1	57.43	82.43	0.35	0.3	0.085	4.6	0.5395	0.3155
16-Aug-92	16.6	54.90	79.90	0.375	0.3	0.085	6.025	0.5395	0.3155
17-Aug-92	16.1	54.43	79.43	0.375	0.3	0.085	6.025	0.5395	0.3155
18-Aug-92	18.1	32.71	57.71	0.375	0.3	0.085	6.025	0.5395	0.3155
19-Aug-92	26.1	40.69	65.69	0.375	0.3	0.085	6.025	0.5395	0.3155
20-Aug-92	57.1	71.78	96.78	0.375	0.3	0.085	6.025	0.5395	0.3155
21-Aug-92	55.1	69.78	94.78	0.375	0.3	0.085	6.025	0.5395	0.3155
22-Aug-92	42.1	56.76	81.76	0.375	0.3	0.085	6.025	0.5395	0.3155
23-Aug-92	43.6	58.21	83.21	0.375	0.3	0.085	6.025	0.5395	0.3155
24-Aug-92	42.3	56.93	81.93	0.375	0.3	0.085	6.025	0.5395	0.3155
25-Aug-92	41.1	55.78	80.78	0.375	0.3	0.085	6.025	0.5395	0.3155
26-Aug-92	38.6	53.23	78.23	0.375	0.3	0.085	6.025	0.5395	0.3155
27-Aug-92	25.4	40.06	65.06	0.375	0.3	0.085	6.025	0.5395	0.3155
28-Aug-92	28.0	62.41	87.41	0.375	0.3	0.085	6.025	0.5395	0.3155
29-Aug-92	39.0	73.41	98.41	0.375	0.3	0.085	6.025	0.5395	0.3155
30-Aug-92	51.3	85.67	110.67	0.375	0.3	0.085	6.025	0.5395	0.3155
31-Aug-92	57.1	91.56	116.56	0.375	0.3	0.085	6.025	0.5395	0.3155

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
1-Sep-92	39.8	74.21	99.21	0.375	0.3	0.085	6.025	0.5395	0.3155
2-Sep-92	33.6	68.01	93.01	0.375	0.3	0.085	6.025	0.5395	0.3155
3-Sep-92	45.8	80.17	105.17	0.375	0.3	0.085	6.025	0.5395	0.3155
4-Sep-92	45.8	80.17	105.17	0.375	0.3	0.085	6.025	0.5395	0.3155
5-Sep-92	44.0	78.42	103.42	0.375	0.3	0.085	6.025	0.5395	0.3155
6-Sep-92	44.0	78.42	103.42	0.375	0.3	0.085	6.025	0.5395	0.3155
7-Sep-92	45.8	81.66	106.66	0.375	0.3	0.085	6.025	0.5395	0.3155
8-Sep-92	39.0	74.90	99.90	0.375	0.3	0.085	6.025	0.5395	0.3155
9-Sep-92	37.4	73.30	98.30	0.375	0.3	0.085	6.025	0.5395	0.3155
10-Sep-92	21.8	57.75	82.75	0.375	0.3	0.085	6.025	0.5395	0.3155
11-Sep-92	18.6	54.50	79.50	0.375	0.3	0.085	6.025	0.5395	0.3155
12-Sep-92	18.6	54.50	79.50	0.375	0.3	0.085	6.025	0.5395	0.3155
13-Sep-92	26.1	61.96	86.96	0.375	0.3	0.085	6.025	0.5395	0.3155
14-Sep-92	38.2	74.10	99.10	0.375	0.3	0.085	6.025	0.5395	0.3155
15-Sep-92	39.8	75.70	100.70	0.375	0.3	0.085	6.025	0.5395	0.3155
16-Sep-92	38.2	74.10	99.10	0.375	0.3	0.085	6.025	0.5395	0.3155
17-Sep-92	46.6	84.37	109.37	0.375	0.3	0.085	6.025	0.5395	0.3155
18-Sep-92	58.2	95.89	120.89	0.4	0.25	0.085	7.45	0.581	0.3155
19-Sep-92	56.1	93.86	118.86	0.45	0.325	0.085	7.575	0.8705	0.3155
20-Sep-92	58.2	95.89	120.89	0.45	0.325	0.085	7.575	0.8705	0.3155
21-Sep-92	61.3	99.01	124.01	0.45	0.325	0.085	7.575	0.8705	0.3155
22-Sep-92	52.2	89.94	114.94	0.45	0.325	0.085	7.575	0.8705	0.3155
23-Sep-92	48.5	86.19	111.19	0.45	0.325	0.085	7.575	0.8705	0.3155
24-Sep-92	48.0	85.74	110.74	0.45	0.325	0.085	7.575	0.8705	0.3155
25-Sep-92	47.5	85.27	110.27	0.45	0.325	0.085	7.575	0.8705	0.3155
26-Sep-92	39.8	77.52	102.52	0.45	0.325	0.085	7.575	0.8705	0.3155
27-Sep-92	39.0	63.63	88.63	0.45	0.325	0.085	7.575	0.8705	0.3155
28-Sep-92	37.8	62.43	87.43	0.45	0.325	0.085	7.575	0.8705	0.3155
29-Sep-92	33.2	57.86	82.86	0.45	0.325	0.085	7.575	0.8705	0.3155
30-Sep-92	38.6	50.10	75.10	0.45	0.325	0.085	7.575	0.8705	0.3155
1-Oct-92	46.6	58.15	83.15	0.45	0.325	0.085	7.575	0.8705	0.3155
2-Oct-92	46.6	58.15	83.15	0.45	0.325	0.085	7.575	0.8705	0.3155
3-Oct-92	44.4	55.95	80.95	0.45	0.325	0.085	7.575	0.8705	0.3155
4-Oct-92	52.2	63.72	88.72	0.45	0.325	0.085	7.575	0.8705	0.3155
5-Oct-92	56.1	67.64	92.64	0.45	0.325	0.085	7.575	0.8705	0.3155
6-Oct-92	48.9	60.44	85.44	0.45	0.325	0.085	7.575	0.8705	0.3155
7-Oct-92	47.5	59.48	84.48	0.45	0.325	0.085	7.575	0.8705	0.3155
8-Oct-92	38.6	50.53	75.53	0.45	0.325	0.085	7.575	0.8705	0.3155
9-Oct-92	35.1	47.01	72.01	0.45	0.325	0.085	7.575	0.8705	0.3155

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
10-Oct-92	33.6	45.53	70.53	0.45	0.325	0.085	7.575	0.8705	0.3155
11-Oct-92	27.3	39.28	64.28	0.45	0.325	0.085	7.575	0.8705	0.3155
12-Oct-92	20.4	32.38	57.38	0.45	0.325	0.085	7.575	0.8705	0.3155
13-Oct-92	20.4	32.38	57.38	0.5	0.325	0.085	7.7	0.8705	0.3155
14-Oct-92	21.6	33.49	58.49	0.425	0.325	0.085	6.2	0.8705	0.3155
15-Oct-92	39.8	51.73	76.73	0.425	0.325	0.085	6.2	0.8705	0.3155
16-Oct-92	46.6	58.58	83.58	0.425	0.325	0.085	6.2	0.8705	0.3155
17-Oct-92	47.1	56.61	81.61	0.425	0.325	0.085	6.2	0.8705	0.3155
18-Oct-92	44.9	54.40	79.40	0.425	0.325	0.085	6.2	0.8705	0.3155
19-Oct-92	38.6	60.67	85.67	0.425	0.325	0.085	6.2	0.8705	0.3155
20-Oct-92	32.9	59.85	84.85	0.425	0.325	0.085	6.2	0.8705	0.3155
21-Oct-92	35.8	60.67	85.67	0.425	0.325	0.085	6.2	0.8705	0.3155
22-Oct-92	24.2	56.67	81.67	0.425	0.325	0.085	6.2	0.8705	0.3155
23-Oct-92	19.6	48.95	73.95	0.425	0.325	0.085	6.2	0.8705	0.3155
24-Oct-92	21.3	47.45	72.45	0.425	0.325	0.085	6.2	0.8705	0.3155
25-Oct-92	20.2	48.95	73.95	0.425	0.325	0.085	6.2	0.8705	0.3155
26-Oct-92	19.6	45.23	70.23	0.425	0.325	0.085	6.2	0.8705	0.3155
27-Oct-92	17.8	43.03	68.03	0.425	0.325	0.085	6.2	0.8705	0.3155
28-Oct-92	20.7	41.60	66.60	0.425	0.4	0.085	6.2	1.16	0.3155
29-Oct-92	29.0	40.18	65.18	0.425	0.375	0.085	6.2	1.32	0.3155
30-Oct-92	30.0	40.88	65.88	0.425	0.375	0.085	6.2	1.32	0.3155
31-Oct-92	26.4	40.88	65.88	0.425	0.375	0.085	6.2	1.32	0.3155
1-Nov-92	28.7	55.10	80.10	0.425	0.375	0.085	6.2	1.32	0.3155
2-Nov-92	28.0	56.67	81.67	0.425	0.375	0.085	6.2	1.32	0.3155
3-Nov-92	30.0	55.10	80.10	0.425	0.375	0.085	6.2	1.32	0.3155
4-Nov-92	25.4	53.55	78.55	0.425	0.375	0.085	6.2	1.32	0.3155
5-Nov-92	20.7	53.55	78.55	0.425	0.375	0.085	6.2	1.32	0.3155
6-Nov-92	22.4	53.55	78.55	0.425	0.375	0.085	6.2	1.32	0.3155
7-Nov-92	21.8	50.47	75.47	0.425	0.375	0.085	6.2	1.32	0.3155
8-Nov-92	21.8	45.97	70.97	0.425	0.375	0.085	6.2	1.32	0.3155
9-Nov-92	20.7	45.97	70.97	0.425	0.375	0.085	6.2	1.32	0.3155
10-Nov-92	21.3	44.50	69.50	0.425	0.375	0.085	6.2	1.32	0.3155
11-Nov-92	23.0	45.97	70.97	0.425	0.375	0.085	6.2	1.32	0.3155
12-Nov-92	24.2	47.45	72.45	0.35	0.375	0.085	4.7	1.32	0.3155
13-Nov-92	26.1	45.97	70.97	0.175	0.375	0.085	2.025	1.32	0.3155
14-Nov-92	25.4	44.50	69.50	0.175	0.375	0.085	2.025	1.32	0.3155
15-Nov-92	24.2	43.03	68.03	0.175	0.375	0.085	2.025	1.32	0.3155
16-Nov-92	23.0	40.18	65.18	0.175	0.375	0.085	2.025	1.32	0.3155
17-Nov-92	21.8	40.18	65.18	0.175	0.375	0.085	2.025	1.32	0.3155

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
18-Nov-92	23.0	40.18	65.18	0.175	0.375	0.085	2.025	1.32	0.3155
19-Nov-92	20.2	38.77	63.77	0.175	0.375	0.085	2.025	1.32	0.3155
20-Nov-92	19.6	38.77	63.77	0.175	0.375	0.085	2.025	1.32	0.3155
21-Nov-92	19.1	38.77	63.77	0.175	0.375	0.085	2.025	1.32	0.3155
22-Nov-92	19.1	38.77	63.77	0.175	0.375	0.085	2.025	1.32	0.3155
23-Nov-92	18.1	37.37	62.37	0.175	0.375	0.085	2.025	1.32	0.3155
24-Nov-92	18.1	36.00	61.00	0.175	0.375	0.085	2.025	1.32	0.3155
25-Nov-92	19.1	34.63	59.63	0.175	0.35	0.085	2.025	1.48	0.3155
26-Nov-92	26.7	34.63	59.63	0.175	0.35	0.085	2.025	1.445	0.3155
27-Nov-92	27.3	37.37	62.37	0.175	0.35	0.085	2.025	1.445	0.3155
28-Nov-92	26.1	38.77	63.77	0.175	0.35	0.085	2.025	1.445	0.3155
29-Nov-92	26.7	38.77	63.77	0.175	0.35	0.085	2.025	1.445	0.3155
30-Nov-92	24.2	38.77	63.77	0.175	0.35	0.085	2.025	1.445	0.3155
1-Dec-92	26.1	38.77	63.77	0.175	0.35	0.085	2.025	1.445	0.3155
2-Dec-92	26.1	38.77	63.77	0.175	0.35	0.085	2.025	1.445	0.3155
3-Dec-92	19.6	36.00	61.00	0.175	0.35	0.085	2.025	1.445	0.3155
4-Dec-92	18.6	33.30	58.30	0.175	0.35	0.085	2.025	1.445	0.3155
5-Dec-92	19.6	33.30	58.30	0.35	0.35	0.085	4.05	1.445	0.3155
6-Dec-92	19.1	31.83	56.83	0.35	0.35	0.085	3.895	1.445	0.3155
7-Dec-92	14.3	30.65	55.65	0.35	0.35	0.085	3.895	1.445	0.3155
8-Dec-92	13.0	30.65	55.65	0.35	0.35	0.085	3.895	1.41	0.3155
9-Dec-92	15.6	28.10	53.10	0.35	0.4	0.085	3.895	1.66	0.3155
10-Dec-92	20.2	28.10	53.10	0.35	0.4	0.085	3.895	1.66	0.3155
11-Dec-92	21.3	28.10	53.10	0.35	0.4	0.085	3.895	1.66	0.3155
12-Dec-92	23.0	28.10	53.10	0.35	0.4	0.085	3.895	1.66	0.3155
13-Dec-92	22.4	28.10	53.10	0.35	0.4	0.085	3.895	1.66	0.3155
14-Dec-92	23.6	31.97	56.97	0.35	0.4	0.085	3.895	1.66	0.3155
15-Dec-92	24.8	33.30	58.30	0.35	0.4	0.085	3.895	1.66	0.3155
16-Dec-92	21.8	33.30	58.30	0.35	0.4	0.085	3.895	1.66	0.3155
17-Dec-92	17.1	31.97	56.97	0.35	0.4	0.085	3.895	1.66	0.3155
18-Dec-92	12.2	29.37	54.37	0.35	0.4	0.085	3.895	1.66	0.3155
19-Dec-92	9.2	26.83	51.83	0.35	0.4	0.085	3.895	1.66	0.3155
20-Dec-92	6.7	24.38	49.38	0.35	0.4	0.085	3.895	1.66	0.3155
21-Dec-92	7.6	22.00	47.00	0.35	0.4	0.085	3.895	1.66	0.3155
22-Dec-92	9.9	20.85	45.85	0.35	0.4	0.085	3.895	1.66	0.3155
23-Dec-92	8.9	18.58	43.58	0.35	0.4	0.085	3.895	1.66	0.3155
24-Dec-92	16.1	16.42	41.42	0.35	0.4	0.085	3.895	1.66	0.3155
25-Dec-92	20.7	15.37	40.37	0.35	0.4	0.085	3.895	1.66	0.3155
26-Dec-92	19.1	15.37	40.37	0.35	0.4	0.085	3.895	1.66	0.3155

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
27-Dec-92	16.1	15.37	40.37	0.35	0.4	0.085	3.895	1.66	0.3155
28-Dec-92	15.2	17.50	42.50	0.35	0.4	0.085	3.895	1.66	0.3155
29-Dec-92	14.7	19.70	44.70	0.35	0.4	0.085	3.895	1.66	0.3155
30-Dec-92	15.2	20.85	45.85	0.35	0.4	0.085	3.895	1.66	0.3155
31-Dec-92	14.3	22.00	47.00	0.35	0.4	0.085	3.895	1.66	0.3155
1-Jan-93	15.2	24.38	49.38	0.35	0.4	0.085	3.895	1.66	0.3155
2-Jan-93	15.2	26.83	51.83	0.35	0.45	0.085	3.895	1.91	0.3155
3-Jan-93	14.3	19.70	44.70	0.35	0.5	0.085	3.74	2.185	0.3155
4-Jan-93	14.7	18.58	43.58	0.35	0.5	0.085	3.745	2.185	0.3155
5-Jan-93	11.8	17.50	42.50	0.35	0.5	0.085	3.745	2.185	0.3155
6-Jan-93	13.8	17.50	42.50	0.35	0.5	0.085	3.745	2.185	0.3155
7-Jan-93	20.7	17.50	42.50	0.35	0.5	0.085	3.745	2.185	0.3155
8-Jan-93	20.7	17.50	42.50	0.35	0.5	0.085	3.745	2.185	0.3155
9-Jan-93	21.3	19.70	44.70	0.35	0.5	0.085	3.745	2.185	0.3155
10-Jan-93	24.2	22.00	47.00	0.35	0.5	0.085	3.745	2.185	0.3155
11-Jan-93	24.2	23.18	48.18	0.35	0.5	0.12	3.745	2.185	0.55
12-Jan-93	25.4	24.38	49.38	0.35	0.5	0.185	3.745	2.185	1.3815
13-Jan-93	28.7	25.60	50.60	0.35	0.5	0.185	3.745	2.185	1.3815
14-Jan-93	18.6	26.83	51.83	0.35	0.5	0.185	3.745	2.185	1.3815
15-Jan-93	18.1	26.83	51.83	0.35	0.5	0.185	3.745	2.185	1.3815
16-Jan-93	13.4	25.60	50.60	0.35	0.5	0.185	3.745	2.185	1.3815
17-Jan-93	11.0	23.18	48.18	0.35	0.5	0.185	3.745	2.185	1.3815
18-Jan-93	13.8	20.85	45.85	0.35	0.5	0.185	3.745	2.185	1.3815
19-Jan-93	16.1	20.85	45.85	0.35	0.5	0.185	3.745	2.185	1.3815
20-Jan-93	12.6	19.70	44.70	0.35	0.5	0.185	3.745	2.185	1.3815
21-Jan-93	17.1	19.70	44.70	0.35	0.5	0.185	3.745	2.185	1.3815
22-Jan-93	17.1	20.85	45.85	0.35	0.5	0.185	3.745	2.185	1.3815
23-Jan-93	17.6	19.70	44.70	0.35	0.5	0.185	3.745	2.185	1.3815
24-Jan-93	18.6	18.58	43.58	0.35	0.5	0.185	3.745	2.185	1.3815
25-Jan-93	18.6	18.58	43.58	0.35	0.5	0.185	3.745	2.185	1.3815
26-Jan-93	19.6	18.58	43.58	0.35	0.5	0.185	3.745	2.185	1.3815
27-Jan-93	18.6	18.58	43.58	0.35	0.5	0.185	3.745	2.185	1.3815
28-Jan-93	11.0	18.58	43.58	0.35	0.5	0.185	3.745	2.185	1.3815
29-Jan-93	13.4	17.50	42.50	0.35	0.5	0.185	3.745	2.185	1.3815
30-Jan-93	15.2	18.58	43.58	0.35	0.5	0.185	3.745	2.185	1.3815
31-Jan-93	14.7	18.58	43.58	0.35	0.5	0.185	3.745	2.185	1.3815
1-Feb-93	5.9	6.62	31.62	0.35	0.55	0.185	3.745	2.46	1.3815
2-Feb-93	8.7	5.47	30.47	0.35	0.55	0.185	3.745	2.855	1.3815
3-Feb-93	16.6	4.73	29.73	0.35	0.55	0.185	3.75	2.855	1.3815

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
4-Feb-93	16.3	5.10	30.10	0.35	0.55	0.185	3.925	2.855	1.3815
5-Feb-93	15.9	5.10	30.10	0.35	0.55	0.185	3.925	2.855	1.3815
6-Feb-93	14.5	6.22	31.22	0.35	0.55	0.185	3.925	2.855	1.3815
7-Feb-93	14.5	6.62	31.62	0.35	0.55	0.185	3.925	2.855	1.3815
8-Feb-93	13.4	6.62	31.62	0.35	0.55	0.185	3.925	2.855	1.3815
9-Feb-93	13.0	6.62	31.62	0.35	0.55	0.185	3.925	2.855	1.3815
10-Feb-93	8.5	5.83	30.83	0.35	0.55	0.185	3.925	2.855	1.3815
11-Feb-93	7.1	5.83	30.83	0.35	0.55	0.185	3.925	2.855	1.3815
12-Feb-93	7.4	4.73	29.73	0.35	0.55	0.185	3.925	2.855	1.3815
13-Feb-93	7.6	3.38	28.38	0.35	0.55	0.185	3.925	2.855	1.3815
14-Feb-93	7.1	4.38	29.38	0.35	0.55	0.185	3.925	2.855	1.3815
15-Feb-93	22.7	4.05	29.05	0.35	0.55	0.185	3.925	2.855	1.3815
16-Feb-93	7.1	3.72	28.72	0.35	0.55	0.185	3.925	2.855	1.3815
17-Feb-93	15.2	3.72	28.72	0.35	0.55	0.185	3.925	2.855	1.3815
18-Feb-93	16.1	4.05	29.05	0.35	0.55	0.185	3.925	2.855	1.3815
19-Feb-93	17.6	6.22	31.22	0.35	0.55	0.185	3.925	2.855	1.3815
20-Feb-93	18.3	8.68	33.68	0.35	0.55	0.185	3.925	2.855	1.3815
21-Feb-93	18.6	9.55	34.55	0.35	0.55	0.185	3.925	2.855	1.3815
22-Feb-93	18.6	9.55	34.55	0.35	0.55	0.185	3.925	2.855	1.3815
23-Feb-93	16.1	9.55	34.55	0.35	0.55	0.185	3.925	2.855	1.3815
24-Feb-93	7.9	12.83	37.83	0.35	0.55	0.185	3.925	2.855	1.3815
25-Feb-93	6.3	10.92	35.92	0.35	0.55	0.185	3.925	2.855	1.3815
26-Feb-93	7.3	10.00	35.00	0.35	0.55	0.185	3.925	2.855	1.3815
27-Feb-93	8.5	8.25	33.25	0.35	0.55	0.185	3.925	2.855	1.3815
28-Feb-93	6.4	7.00	32.00	0.35	0.55	0.185	3.925	2.855	1.3815
1-Mar-93	9.9	18.58	43.58	0.35	0.55	0.185	3.925	2.855	1.3815
2-Mar-93	9.9	19.15	44.15	0.35	0.55	0.185	3.925	2.855	1.3815
3-Mar-93	10.6	19.15	44.15	0.35	0.55	0.185	3.925	2.855	1.3815
4-Mar-93	15.4	18.58	43.58	0.35	0.55	0.185	3.925	2.855	1.3815
5-Mar-93	22.4	20.27	45.27	0.35	0.55	0.185	3.925	2.855	1.3815
6-Mar-93	18.6	23.18	48.18	0.35	0.55	0.185	3.925	2.855	1.3815
7-Mar-93	17.1	24.38	49.38	0.35	0.55	0.185	3.925	2.855	1.3815
8-Mar-93	18.6	24.38	49.38	0.35	0.55	0.185	3.925	2.855	1.3815
9-Mar-93	13.0	24.98	49.98	0.35	0.55	0.185	3.925	2.855	1.3815
10-Mar-93	14.7	24.38	49.38	0.35	0.55	0.185	3.925	2.855	1.3815
11-Mar-93	9.5	24.98	49.98	0.35	0.55	0.185	3.925	2.855	1.3815
12-Mar-93	10.6	22.60	47.60	0.35	0.55	0.185	3.925	2.855	1.3815
13-Mar-93	7.9	21.42	46.42	0.35	0.55	0.185	3.925	2.855	1.3815
14-Mar-93	7.4	20.27	45.27	0.35	0.55	0.185	3.925	2.855	1.3815

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
15-Mar-93	7.6	20.27	45.27	0.35	0.55	0.185	3.925	2.855	1.3815
16-Mar-93	7.0	19.70	44.70	0.35	0.55	0.185	3.925	2.855	1.3815
17-Mar-93	9.2	19.70	44.70	0.35	0.55	0.185	3.925	2.855	1.3815
18-Mar-93	11.0	18.58	43.58	0.35	0.55	0.185	4.1	2.855	1.3815
19-Mar-93	24.2	19.70	44.70	0.23	0.55	0.185	2.535	2.855	1.3815
20-Mar-93	24.5	23.78	48.78	0.23	0.55	0.25	2.535	3.25	2.21
21-Mar-93	27.3	26.83	51.83	0.23	0.425	0.14	2.535	2.56	1.238
22-Mar-93	30.0	26.83	51.83	0.23	0.425	0.14	2.535	2.56	1.238
23-Mar-93	33.6	30.02	55.02	0.23	0.425	0.14	2.535	2.56	1.238
24-Mar-93	37.4	34.63	59.63	0.23	0.425	0.14	2.535	2.56	1.238
25-Mar-93	22.4	38.77	63.77	0.23	0.425	0.14	2.535	2.56	1.238
26-Mar-93	17.6	37.37	62.37	0.23	0.425	0.14	2.535	2.56	1.238
27-Mar-93	11.0	34.63	59.63	0.23	0.425	0.14	2.535	2.56	1.238
28-Mar-93	10.6	31.32	56.32	0.23	0.425	0.14	2.535	2.56	1.238
29-Mar-93	11.2	27.47	52.47	0.23	0.425	0.14	2.535	2.56	1.238
30-Mar-93	9.9	24.38	49.38	0.23	0.425	0.14	2.535	2.56	1.238
31-Mar-93	11.8	23.18	48.18	0.23	0.425	0.14	2.535	2.56	1.238
1-Apr-93	16.8	24.98	49.98	0.23	0.425	0.14	2.535	2.56	1.238
2-Apr-93	28.0	26.83	51.83	0.23	0.425	0.14	2.535	2.56	1.238
3-Apr-93	36.6	31.97	56.97	0.23	0.425	0.14	2.535	2.56	1.238
4-Apr-93	40.0	40.88	65.88	0.23	0.425	0.14	2.535	2.56	1.238
5-Apr-93	31.4	50.47	75.47	0.23	0.425	0.14	2.535	2.56	1.238
6-Apr-93	31.4	50.47	75.47	0.23	0.425	0.14	2.535	2.56	1.238
7-Apr-93	31.4	51.23	76.23	0.23	0.425	0.14	2.535	2.56	1.238
8-Apr-93	23.9	52.00	77.00	0.23	0.425	0.14	2.535	2.56	1.238
9-Apr-93	22.4	51.23	76.23	0.23	0.3	0.14	2.535	1.87	1.238
10-Apr-93	21.6	45.83	70.83	0.23	0.275	0.14	2.535	1.51	1.238
11-Apr-93	20.2	44.50	69.50	0.23	0.275	0.14	2.535	1.51	1.238
12-Apr-93	21.3	42.32	67.32	0.23	0.275	0.14	2.535	1.51	1.238
13-Apr-93	20.7	43.03	68.03	0.23	0.275	0.14	2.535	1.51	1.238
14-Apr-93	25.4	43.77	68.77	0.23	0.275	0.14	2.535	1.51	1.238
15-Apr-93	31.8	45.23	70.23	0.23	0.275	0.14	2.535	1.51	1.238
16-Apr-93	36.6	49.72	74.72	0.23	0.275	0.14	2.535	1.51	1.238
17-Apr-93	37.4	54.32	79.32	0.23	0.275	0.14	2.535	1.51	1.238
18-Apr-93	38.6	55.88	80.88	0.23	0.275	0.14	2.535	1.51	1.238
19-Apr-93	41.0	58.25	83.25	0.11	0.275	0.14	0.97	1.51	1.238
20-Apr-93	41.4	62.28	87.28	0.23	0.275	0.14	3.135	1.51	1.238
21-Apr-93	35.1	63.92	88.92	0.23	0.275	0.14	3.135	1.51	1.238
22-Apr-93	19.9	64.73	89.73	0.23	0.275	0.14	3.135	1.51	1.238

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
23-Apr-93	19.1	59.05	84.05	0.23	0.275	0.14	3.135	1.51	1.238
24-Apr-93	16.1	53.55	78.55	0.23	0.275	0.14	3.135	1.51	1.238
25-Apr-93	16.8	48.95	73.95	0.23	0.275	0.14	3.135	1.51	1.238
26-Apr-93	18.6	46.72	71.72	0.23	0.275	0.14	3.135	1.51	1.238
27-Apr-93	13.8	45.97	70.97	0.23	0.275	0.14	3.135	1.51	1.238
28-Apr-93	16.1	43.03	68.03	0.23	0.275	0.14	3.135	1.51	1.238
29-Apr-93	28.0	41.60	66.60	0.23	0.275	0.14	3.135	1.51	1.238
30-Apr-93	31.4	45.97	70.97	0.23	0.275	0.14	3.135	1.51	1.238
1-May-93	29.3	52.00	77.00	0.23	0.275	0.14	3.135	1.51	1.238
2-May-93	29.3	55.10	80.10	0.23	0.275	0.14	3.135	1.51	1.238
3-May-93	26.7	56.67	81.67	0.23	0.275	0.14	3.135	1.51	1.238
4-May-93	22.4	59.85	84.85	0.23	0.275	0.14	3.135	1.51	1.238
5-May-93	16.6	58.25	83.25	0.23	0.275	0.14	3.135	1.51	1.238
6-May-93	16.6	58.25	83.25	0.23	0.275	0.14	3.135	1.51	1.238
7-May-93	14.7	58.25	83.25	0.23	0.275	0.14	3.135	1.51	1.238
8-May-93	13.0	56.67	81.67	0.35	0.275	0.14	5.3	1.51	1.238
9-May-93	15.2	56.67	81.67	0.245	0.275	0.14	3.39	1.51	1.238
10-May-93	10.6	53.55	78.55	0.245	0.275	0.14	3.39	1.51	1.238
11-May-93	9.5	44.50	69.50	0.245	0.275	0.14	3.39	1.51	1.238
12-May-93	10.2	41.60	66.60	0.245	0.275	0.14	3.39	1.51	1.238
13-May-93	14.7	58.25	83.25	0.245	0.275	0.14	3.39	1.51	1.238
14-May-93	21.3	37.37	62.37	0.245	0.275	0.14	3.39	1.51	1.238
15-May-93	26.1	37.37	62.37	0.245	0.275	0.14	3.39	1.51	1.238
16-May-93	26.1	38.77	63.77	0.245	0.275	0.14	3.39	1.51	1.238
17-May-93	23.0	40.18	65.18	0.245	0.25	0.14	3.39	1.15	1.238
18-May-93	23.6	41.60	66.60	0.245	0.275	0.14	3.39	1.12	1.238
19-May-93	20.2	41.60	66.60	0.245	0.275	0.14	3.39	1.12	1.238
20-May-93	11.0	38.77	63.77	0.245	0.275	0.14	3.39	1.12	1.238
21-May-93	9.5	36.00	61.00	0.245	0.275	0.14	3.39	1.12	1.238
22-May-93	13.0	43.03	68.03	0.245	0.275	0.14	3.39	1.12	1.238
23-May-93	18.1	52.00	77.00	0.245	0.275	0.14	3.39	1.12	1.238
24-May-93	15.6	55.10	80.10	0.245	0.275	0.14	3.39	1.12	1.238
25-May-93	14.3	53.55	78.55	0.245	0.275	0.14	3.39	1.12	1.238
26-May-93	18.1	52.00	77.00	0.245	0.275	0.14	3.39	1.12	1.238
27-May-93	45.8	50.47	75.47	0.245	0.275	0.14	3.39	1.12	1.238
28-May-93	44.9	55.10	80.10	0.245	0.275	0.14	3.39	1.12	1.238
29-May-93	47.5	55.10	80.10	0.245	0.275	0.14	3.39	1.12	1.238
30-May-93	49.4	56.67	81.67	0.245	0.275	0.03	3.39	1.12	0.27
31-May-93	52.2	58.25	83.25	0.245	0.275	0.035	3.39	1.12	0.208

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
1-Jun-93	56.1	61.47	86.47	0.245	0.275	0.035	3.39	1.12	0.208
2-Jun-93	45.8	63.10	88.10	0.245	0.275	0.035	3.39	1.12	0.208
3-Jun-93	19.6	61.63	86.63	0.245	0.275	0.035	3.39	1.12	0.208
4-Jun-93	16.6	52.00	77.00	0.245	0.275	0.035	3.39	1.12	0.208
5-Jun-93	16.1	47.45	72.45	0.245	0.3	0.035	3.39	1.09	0.208
6-Jun-93	23.6	43.03	68.03	0.14	0.275	0.035	1.48	0.893	0.208
7-Jun-93	17.1	41.60	66.60	0.195	0.275	0.035	2.74	0.893	0.208
8-Jun-93	13.6	38.77	63.77	0.195	0.275	0.035	2.74	0.893	0.208
9-Jun-93	16.1	33.30	58.30	0.195	0.275	0.035	2.74	0.893	0.208
10-Jun-93	12.6	30.65	55.65	0.195	0.275	0.035	2.74	0.893	0.208
11-Jun-93	11.8	26.77	51.77	0.195	0.275	0.035	2.74	0.893	0.208
12-Jun-93	14.3	26.83	51.83	0.195	0.275	0.035	2.74	0.893	0.208
13-Jun-93	16.6	26.83	51.83	0.195	0.275	0.035	2.74	0.893	0.208
14-Jun-93	19.6	26.83	51.83	0.195	0.275	0.035	2.74	0.893	0.208
15-Jun-93	22.4	28.10	53.10	0.195	0.275	0.035	2.74	0.893	0.208
16-Jun-93	17.6	28.10	53.10	0.195	0.275	0.035	2.74	0.893	0.208
17-Jun-93	14.7	26.83	51.83	0.195	0.275	0.035	2.74	0.893	0.208
18-Jun-93	15.9	25.60	50.60	0.195	0.275	0.035	2.74	0.893	0.208
19-Jun-93	16.3	26.83	51.83	0.195	0.275	0.035	2.74	0.893	0.208
20-Jun-93	15.2	29.37	54.37	0.195	0.275	0.04	2.74	0.893	0.15
21-Jun-93	16.6	29.37	54.37	0.195	0.275	0.04	2.74	0.893	0.1345
22-Jun-93	20.7	30.65	55.65	0.195	0.275	0.04	2.74	0.893	0.1345
23-Jun-93	15.2	33.30	58.30	0.195	0.275	0.04	2.74	0.893	0.1345
24-Jun-93	16.6	31.97	56.97	0.195	0.275	0.04	2.74	0.893	0.1345
25-Jun-93	18.6	33.30	58.30	0.195	0.275	0.04	2.74	0.893	0.1345
26-Jun-93	18.8	34.63	59.63	0.195	0.275	0.04	2.74	0.893	0.1345
27-Jun-93	17.3	34.63	59.63	0.195	0.275	0.04	2.74	0.893	0.1345
28-Jun-93	18.1	33.30	58.30	0.195	0.275	0.04	2.74	0.893	0.1345
29-Jun-93	18.6	33.30	58.30	0.195	0.275	0.04	2.74	0.893	0.1345
30-Jun-93	17.1	33.30	58.30	0.195	0.275	0.04	2.74	0.893	0.1345
1-Jul-93	9.5	27.65	52.65	0.195	0.275	0.04	2.74	0.893	0.1345
2-Jul-93	8.9	22.00	47.00	0.195	0.275	0.04	2.74	0.893	0.1345
3-Jul-93	8.2	19.70	44.70	0.195	0.275	0.04	2.74	0.893	0.1345
4-Jul-93	7.9	18.58	43.58	0.195	0.275	0.04	2.74	0.893	0.1345
5-Jul-93	7.6	16.42	41.42	0.195	0.275	0.04	2.74	0.893	0.1345
6-Jul-93	7.6	14.33	39.33	0.195	0.275	0.04	2.74	0.893	0.1345
7-Jul-93	7.6	13.33	38.33	0.195	0.275	0.04	2.74	0.893	0.1345
8-Jul-93	11.4	12.35	37.35	0.195	0.275	0.04	2.74	0.893	0.1345
9-Jul-93	18.1	15.37	40.37	0.195	0.275	0.04	2.74	0.893	0.1345

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
10-Jul-93	33.6	44.50	69.50	0.195	0.275	0.04	2.74	0.893	0.1345
11-Jul-93	23.6	56.67	81.67	0.195	0.275	0.04	2.74	0.893	0.1345
12-Jul-93	20.2	61.47	86.47	0.195	0.275	0.04	2.74	0.893	0.1345
13-Jul-93	19.1	63.10	88.10	0.195	0.275	0.04	2.74	0.893	0.1345
14-Jul-93	24.2	63.10	88.10	0.195	0.275	0.04	2.74	0.893	0.1345
15-Jul-93	17.1	59.85	84.85	0.195	0.275	0.04	2.74	0.893	0.1345
16-Jul-93	14.3	53.55	78.55	0.195	0.275	0.04	2.74	0.893	0.1345
17-Jul-93	19.1	48.95	73.95	0.195	0.275	0.04	2.74	0.893	0.1345
18-Jul-93	17.1	44.50	69.50	0.25	0.275	0.04	4	0.893	0.1345
19-Jul-93	19.6	41.60	66.60	0.35	0.275	0.04	4.7	0.893	0.1345
20-Jul-93	23.0	38.77	63.77	0.35	0.275	0.04	4.7	0.893	0.1345
21-Jul-93	28.7	36.00	61.00	0.35	0.275	0.04	4.7	0.893	0.1345
22-Jul-93	38.2	37.37	62.37	0.35	0.275	0.04	4.7	0.893	0.1345
23-Jul-93	50.3	56.67	81.67	0.35	0.275	0.04	4.7	0.893	0.1345
24-Jul-93	42.3	73.12	98.12	0.35	0.275	0.04	4.7	0.893	0.1345
25-Jul-93	37.4	71.42	96.42	0.35	0.275	0.04	4.7	0.893	0.1345
26-Jul-93	31.4	68.05	93.05	0.35	0.275	0.04	4.7	0.893	0.1345
27-Jul-93	36.6	66.38	91.38	0.35	0.25	0.04	4.7	0.696	0.1345
28-Jul-93	38.2	66.38	91.38	0.35	0.25	0.04	4.7	0.6	0.1345
29-Jul-93	18.6	64.73	89.73	0.35	0.25	0.04	4.7	0.6	0.1345
30-Jul-93	17.6	59.85	84.85	0.35	0.25	0.04	4.7	0.6	0.1345
31-Jul-93	19.1	61.47	86.47	0.35	0.25	0.04	4.7	0.6	0.1345
1-Aug-93	14.0	58.25	83.25	0.35	0.25	0.04	4.7	0.6	0.1345
2-Aug-93	14.5	55.10	80.10	0.35	0.25	0.04	4.7	0.6	0.1345
3-Aug-93	21.8	52.00	77.00	0.35	0.25	0.04	4.7	0.6	0.1345
4-Aug-93	22.7	48.95	73.95	0.35	0.25	0.04	4.7	0.6	0.1345
5-Aug-93	39.8	48.95	73.95	0.35	0.25	0.04	4.7	0.6	0.1345
6-Aug-93	40.6	55.88	80.88	0.35	0.25	0.04	4.7	0.6	0.1345
7-Aug-93	41.0	59.85	84.85	0.35	0.25	0.04	4.7	0.6	0.1345
8-Aug-93	57.1	74.83	99.83	0.35	0.25	0.04	4.7	0.6	0.1345
9-Aug-93	73.5	121.33	146.33	0.35	0.25	0.04	4.7	0.6	0.1345
10-Aug-93	56.1	133.45	158.45	0.45	0.25	0.04	5.4	0.6	0.1345
11-Aug-93	52.2	150.10	175.10	0.375	0.25	0.04	4.725	0.6	0.1345
12-Aug-93	38.2	145.88	170.88	0.375	0.25	0.04	4.725	0.6	0.1345
13-Aug-93	38.2	136.52	161.52	0.375	0.25	0.04	4.725	0.6	0.1345
14-Aug-93	32.1	130.38	155.38	0.375	0.25	0.04	4.725	0.6	0.1345
15-Aug-93	29.0	126.33	151.33	0.375	0.25	0.04	4.725	0.6	0.1345
16-Aug-93	28.7	116.38	141.38	0.375	0.25	0.04	4.725	0.6	0.1345
17-Aug-93	29.0	105.73	130.73	0.375	0.25	0.04	4.725	0.6	0.1345

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
18-Aug-93	28.7	98.17	123.17	0.375	0.25	0.04	4.725	0.504	0.12
19-Aug-93	39.8	91.70	116.70	0.375	0.225	0.12	4.725	0.616	0.393
20-Aug-93	45.3	90.78	115.78	0.375	0.225	0.12	4.725	0.616	0.393
21-Aug-93	45.8	86.27	111.27	0.375	0.225	0.12	4.725	0.616	0.393
22-Aug-93	45.8	83.58	108.58	0.375	0.225	0.12	4.725	0.616	0.393
23-Aug-93	37.9	87.17	112.17	0.375	0.225	0.12	4.725	0.616	0.393
24-Aug-93	42.3	81.80	106.80	0.375	0.225	0.12	4.725	0.616	0.393
25-Aug-93	39.0	74.83	99.83	0.375	0.225	0.12	4.725	0.616	0.393
26-Aug-93	32.9	72.83	97.83	0.375	0.225	0.12	4.725	0.616	0.393
27-Aug-93	30.7	67.22	92.22	0.375	0.225	0.12	4.725	0.616	0.393
28-Aug-93	28.0	63.10	88.10	0.375	0.225	0.12	4.725	0.616	0.393
29-Aug-93	26.7	60.67	85.67	0.375	0.225	0.12	4.725	0.616	0.393
30-Aug-93	28.7	60.67	85.67	0.375	0.225	0.12	4.725	0.616	0.393
31-Aug-93	29.0	59.05	84.05	0.375	0.225	0.12	4.725	0.616	0.393
1-Sep-93	32.9	56.67	81.67	0.375	0.225	0.12	4.725	0.616	0.393
2-Sep-93	34.7	56.67	81.67	0.375	0.225	0.12	4.725	0.616	0.393
3-Sep-93	28.0	55.10	80.10	0.375	0.225	0.12	4.725	0.616	0.393
4-Sep-93	22.5	52.00	77.00	0.375	0.225	0.12	4.725	0.616	0.393
5-Sep-93	22.5	48.95	73.95	0.375	0.225	0.12	4.725	0.616	0.393
6-Sep-93	21.8	44.50	69.50	0.375	0.225	0.12	4.725	0.616	0.393
7-Sep-93	30.1	44.50	69.50	0.375	0.225	0.12	4.725	0.616	0.393
8-Sep-93	37.0	45.97	70.97	0.375	0.225	0.12	4.725	0.616	0.393
9-Sep-93	20.8	44.50	69.50	0.375	0.225	0.12	4.725	0.616	0.393
10-Sep-93	18.6	41.60	66.60	0.375	0.225	0.12	4.725	0.616	0.393
11-Sep-93	21.3	40.18	65.18	0.375	0.225	0.12	4.725	0.616	0.393
12-Sep-93	20.6	38.77	63.77	0.375	0.225	0.12	4.725	0.616	0.393
13-Sep-93	20.2	38.77	63.77	0.375	0.225	0.12	4.725	0.616	0.393
14-Sep-93	15.9	36.00	61.00	0.375	0.225	0.12	4.725	0.616	0.393
15-Sep-93	16.1	34.63	59.63	0.375	0.225	0.12	4.725	0.616	0.393
16-Sep-93	13.8	33.30	58.30	0.375	0.225	0.12	4.725	0.616	0.393
17-Sep-93	16.8	31.97	56.97	0.375	0.225	0.12	4.725	0.616	0.393
18-Sep-93	18.6	31.97	56.97	0.375	0.225	0.12	4.725	0.616	0.393
19-Sep-93	21.0	31.97	56.97	0.375	0.225	0.12	4.725	0.616	0.393
20-Sep-93	23.0	31.97	56.97	0.375	0.225	0.12	4.725	0.616	0.393
21-Sep-93	25.1	31.97	56.97	0.375	0.225	0.12	4.725	0.616	0.393
22-Sep-93	26.4	33.30	58.30	0.375	0.225	0.12	4.725	0.616	0.393
23-Sep-93	16.3	33.30	58.30	0.375	0.225	0.12	4.725	0.616	0.393
24-Sep-93	18.2	36.00	61.00	0.375	0.225	0.12	4.725	0.616	0.393
25-Sep-93	14.7	34.63	59.63	0.3	0.2	0.12	4.05	0.728	0.393

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
26-Sep-93	14.0	33.30	58.30	0.25	0.2	0.12	3.16	0.7435	0.393
27-Sep-93	15.4	36.00	61.00	0.25	0.2	0.12	3.16	0.7435	0.393
28-Sep-93	14.7	36.00	61.00	0.25	0.2	0.12	3.16	0.7435	0.393
29-Sep-93	24.2	37.37	62.37	0.25	0.2	0.12	3.16	0.7435	0.393
30-Sep-93	29.0	48.95	73.95	0.25	0.2	0.12	3.16	0.7435	0.393
1-Oct-93	33.6	43.03	68.03	0.25	0.2	0.12	3.16	0.7435	0.393
2-Oct-93	33.6	43.77	68.77	0.25	0.2	0.12	3.16	0.7435	0.393
3-Oct-93	33.2	44.50	69.50	0.25	0.2	0.12	3.16	0.7435	0.393
4-Oct-93	31.1	44.50	69.50	0.25	0.2	0.12	3.16	0.7435	0.393
5-Oct-93	31.4	42.32	67.32	0.25	0.2	0.12	3.16	0.7435	0.393
6-Oct-93	28.7	43.03	68.03	0.25	0.2	0.12	3.16	0.7435	0.393
7-Oct-93	18.6	42.32	67.32	0.25	0.2	0.12	3.16	0.7435	0.393
8-Oct-93	13.8	39.47	64.47	0.25	0.2	0.12	3.16	0.7435	0.393
9-Oct-93	11.4	36.00	61.00	0.25	0.2	0.12	3.16	0.7435	0.393
10-Oct-93	12.2	34.63	59.63	0.25	0.2	0.12	3.16	0.7435	0.393
11-Oct-93	16.1	33.97	58.97	0.25	0.2	0.12	3.16	0.7435	0.393
12-Oct-93	15.2	32.63	57.63	0.25	0.2	0.12	3.16	0.7435	0.393
13-Oct-93	19.6	31.97	56.97	0.2	0.2	0.12	2.27	0.7435	0.393
14-Oct-93	25.7	31.97	56.97	0.18	0.2	0.12	2.065	0.7435	0.393
15-Oct-93	26.1	32.63	57.63	0.18	0.2	0.12	2.065	0.7435	0.393
16-Oct-93	25.4	33.30	58.30	0.18	0.2	0.12	2.065	0.7435	0.393
17-Oct-93	25.7	33.30	58.30	0.18	0.2	0.12	2.065	0.7435	0.393
18-Oct-93	25.7	34.63	59.63	0.18	0.2	0.12	2.065	0.7435	0.393
19-Oct-93	30.7	40.18	65.18	0.18	0.2	0.12	2.065	0.7435	0.393
20-Oct-93	29.3	43.03	68.03	0.18	0.2	0.12	2.065	0.7435	0.393
21-Oct-93	16.6	42.32	67.32	0.18	0.2	0.12	2.065	0.7435	0.393
22-Oct-93	14.7	41.60	66.60	0.18	0.2	0.12	2.065	0.7435	0.393
23-Oct-93	18.3	40.88	65.88	0.18	0.2	0.12	2.065	0.7435	0.393
24-Oct-93	19.6	40.18	65.18	0.18	0.2	0.12	2.065	0.7435	0.393
25-Oct-93	21.8	40.88	65.88	0.18	0.2	0.12	2.065	0.7435	0.393
26-Oct-93	14.9	40.18	65.18	0.18	0.2	0.12	2.065	0.7435	0.393
27-Oct-93	18.1	43.03	68.03	0.18	0.2	0.12	2.065	0.7435	0.393
28-Oct-93	26.1	44.50	69.50	0.18	0.2	0.12	2.065	0.7435	0.393
29-Oct-93	26.4	42.32	67.32	0.18	0.2	0.12	2.065	0.7435	0.393
30-Oct-93	30.0	42.32	67.32	0.18	0.2	0.12	2.065	0.7435	0.393
31-Oct-93	31.4	43.03	68.03	0.18	0.2	0.12	2.065	0.759	0.393
1-Nov-93	30.0	43.03	68.03	0.18	0.25	0.12	2.065	0.824	0.393
2-Nov-93	19.6	44.50	69.50	0.18	0.25	0.12	2.065	0.824	0.393
3-Nov-93	22.4	43.03	68.03	0.18	0.25	0.12	2.065	0.824	0.393

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
4-Nov-93	12.6	41.60	66.60	0.18	0.25	0.12	2.065	0.824	0.393
5-Nov-93	11.4	38.77	63.77	0.18	0.25	0.12	2.065	0.824	0.393
6-Nov-93	9.9	36.00	61.00	0.18	0.25	0.12	2.065	0.824	0.393
7-Nov-93	11.4	33.22	58.22	0.18	0.25	0.12	2.065	0.824	0.393
8-Nov-93	13.0	29.37	54.37	0.18	0.25	0.12	2.065	0.824	0.393
9-Nov-93	14.7	26.83	51.83	0.18	0.25	0.12	2.065	0.824	0.393
10-Nov-93	16.6	26.83	51.83	0.18	0.25	0.12	2.065	0.824	0.393
11-Nov-93	18.6	25.60	50.60	0.18	0.25	0.12	2.065	0.824	0.393
12-Nov-93	20.7	29.37	54.37	0.18	0.25	0.12	2.065	0.824	0.393
13-Nov-93	23.0	30.65	55.65	0.18	0.25	0.12	2.065	0.824	0.393
14-Nov-93	25.4	33.30	58.30	0.16	0.25	0.12	1.86	0.824	0.393
15-Nov-93	32.1	40.18	65.18	0.255	0.25	0.12	3.28	0.824	0.393
16-Nov-93	31.4	40.18	65.18	0.255	0.25	0.12	3.28	0.824	0.393
17-Nov-93	35.1	40.18	65.18	0.255	0.25	0.12	3.28	0.824	0.393
18-Nov-93	24.8	40.18	65.18	0.255	0.3	0.12	3.28	0.889	0.393
19-Nov-93	13.8	37.37	62.37	0.255	0.3	0.12	3.28	0.893	0.393
20-Nov-93	13.8	36.00	61.00	0.255	0.3	0.12	3.28	0.893	0.393
21-Nov-93	13.0	33.30	58.30	0.255	0.3	0.12	3.28	0.893	0.393
22-Nov-93	11.0	29.37	54.37	0.255	0.3	0.12	3.28	0.893	0.393
23-Nov-93	10.6	25.60	50.60	0.255	0.3	0.12	3.28	0.893	0.393
24-Nov-93	11.4	23.18	48.18	0.255	0.3	0.12	3.28	0.893	0.393
25-Nov-93	15.6	22.00	47.00	0.255	0.3	0.12	3.28	0.893	0.393
26-Nov-93	26.1	20.85	45.85	0.255	0.3	0.12	3.28	0.893	0.393
27-Nov-93	27.3	22.00	47.00	0.255	0.3	0.12	3.28	0.893	0.393
28-Nov-93	26.1	28.10	53.10	0.255	0.3	0.12	3.28	0.893	0.393
29-Nov-93	25.4	30.65	55.65	0.255	0.3	0.12	3.28	0.893	0.393
30-Nov-93	26.1	34.63	59.63	0.255	0.3	0.12	3.28	0.893	0.393
1-Dec-93	23.6	36.00	61.00	0.255	0.3	0.12	3.28	0.893	0.393
2-Dec-93	10.2	33.17	58.17	0.255	0.3	0.12	3.28	0.893	0.393
3-Dec-93	9.5	30.65	55.65	0.255	0.3	0.12	3.28	0.893	0.393
4-Dec-93	9.2	30.65	55.65	0.255	0.3	0.12	3.28	0.893	0.393
5-Dec-93	8.9	28.10	53.10	0.35	0.3	0.12	4.7	0.893	0.393
6-Dec-93	7.6	24.38	49.38	0.375	0.3	0.12	4.65	0.893	0.393
7-Dec-93	6.2	22.00	47.00	0.375	0.3	0.12	4.65	0.897	0.393
8-Dec-93	5.0	19.70	44.70	0.375	0.3	0.12	4.65	0.924	0.393
9-Dec-93	9.5	18.58	43.58	0.375	0.3	0.12	4.65	0.924	0.393
10-Dec-93	28.0	18.58	43.58	0.375	0.3	0.12	4.65	0.924	0.393
11-Dec-93	31.4	22.00	47.00	0.375	0.3	0.12	4.65	0.924	0.393
12-Dec-93	30.7	24.38	49.38	0.375	0.3	0.12	4.65	0.924	0.393

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
13-Dec-93	30.7	25.60	50.60	0.375	0.3	0.12	4.65	0.924	0.393
14-Dec-93	30.0	30.65	55.65	0.375	0.3	0.12	4.65	0.924	0.393
15-Dec-93	30.0	33.30	58.30	0.375	0.3	0.12	4.65	0.924	0.393
16-Dec-93	12.2	33.30	58.30	0.375	0.3	0.12	4.65	0.924	0.393
17-Dec-93	14.3	30.65	55.65	0.375	0.3	0.12	4.65	0.924	0.393
18-Dec-93	10.2	28.10	53.10	0.375	0.3	0.12	4.65	0.924	0.393
19-Dec-93	9.2	26.83	51.83	0.375	0.3	0.12	4.65	0.924	0.393
20-Dec-93	7.9	24.38	49.38	0.375	0.3	0.12	4.65	0.924	0.393
21-Dec-93	8.2	23.18	48.18	0.375	0.3	0.12	4.65	0.924	0.393
22-Dec-93	30.0	20.85	45.85	0.375	0.3	0.12	4.65	0.924	0.393
23-Dec-93	30.0	18.58	43.58	0.375	0.3	0.12	4.65	0.924	0.393
24-Dec-93	30.0	18.58	43.58	0.375	0.3	0.12	4.65	0.924	0.393
25-Dec-93	30.0	19.70	44.70	0.375	0.3	0.12	4.65	0.924	0.393
26-Dec-93	30.0	22.00	47.00	0.375	0.3	0.12	4.65	0.924	0.393
27-Dec-93	30.0	23.18	48.18	0.375	0.3	0.12	4.65	0.924	0.393
28-Dec-93	30.0	24.38	49.38	0.375	0.3	0.12	4.65	0.924	0.393
29-Dec-93	28.7	25.60	50.60	0.375	0.3	0.12	4.65	0.924	0.393
30-Dec-93	12.2	28.10	53.10	0.375	0.3	0.12	4.65	0.924	0.393
31-Dec-93	8.9	26.83	51.83	0.375	0.3	0.12	4.65	0.924	0.393
1-Jan-94	13.0	18.58	43.58	0.375	0.3	0.12	4.65	0.924	0.393
2-Jan-94	7.4	18.58	43.58	0.375	0.3	0.12	4.65	0.924	0.393
3-Jan-94	7.1	17.50	42.50	0.4	0.3	0.12	4.6	0.951	0.393
4-Jan-94	6.7	15.37	40.37	0.3	0.3	0.12	3.485	1.0055	0.393
5-Jan-94	6.0	9.55	34.55	0.3	0.3	0.12	3.485	1.0055	0.393
6-Jan-94	9.5	9.55	34.55	0.3	0.3	0.12	3.485	1.0055	0.393
7-Jan-94	38.6	9.55	34.55	0.3	0.3	0.12	3.485	1.0055	0.393
8-Jan-94	27.3	11.40	36.40	0.3	0.3	0.12	3.485	1.0055	0.393
9-Jan-94	27.7	16.42	41.42	0.3	0.3	0.12	3.485	1.0055	0.393
10-Jan-94	24.2	19.70	44.70	0.3	0.3	0.12	3.485	1.0055	0.393
11-Jan-94	26.7	19.70	44.70	0.3	0.3	0.12	3.485	1.0055	0.393
12-Jan-94	29.3	22.00	47.00	0.3	0.3	0.12	3.485	1.0055	0.393
13-Jan-94	37.4	23.18	48.18	0.3	0.3	0.12	3.485	1.0055	0.393
14-Jan-94	24.8	24.38	49.38	0.3	0.3	0.12	3.485	1.0055	0.393
15-Jan-94	12.6	19.70	44.70	0.3	0.3	0.12	3.485	1.0055	0.393
16-Jan-94	10.2	17.63	42.63	0.3	0.3	0.12	3.485	1.0055	0.393
17-Jan-94	9.9	15.37	40.37	0.3	0.3	0.12	3.485	1.0055	0.393
18-Jan-94	10.2	13.33	38.33	0.3	0.3	0.12	3.485	1.0055	0.393
19-Jan-94	14.3	13.33	38.33	0.3	0.3	0.12	3.485	1.0055	0.393
20-Jan-94	26.7	12.83	37.83	0.3	0.3	0.12	3.485	1.0055	0.393

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
21-Jan-94	26.4	13.33	38.33	0.3	0.3	0.12	3.485	1.0055	0.393
22-Jan-94	26.1	13.83	38.83	0.3	0.3	0.2	3.485	1.0055	0.67
23-Jan-94	24.8	14.33	39.33	0.3	0.3	0.2	3.485	1.0055	0.74
24-Jan-94	19.1	14.85	39.85	0.3	0.3	0.2	3.485	1.0055	0.74
25-Jan-94	24.8	15.37	40.37	0.3	0.3	0.2	3.485	1.0055	0.74
26-Jan-94	22.4	15.88	40.88	0.3	0.3	0.2	3.485	1.0055	0.74
27-Jan-94	9.9	16.42	41.42	0.3	0.3	0.2	3.485	1.0055	0.74
28-Jan-94	8.2	13.33	38.33	0.3	0.3	0.2	3.485	1.0055	0.74
29-Jan-94	8.2	11.40	36.40	0.3	0.3	0.2	3.485	1.0055	0.74
30-Jan-94	8.2	9.55	34.55	0.3	0.3	0.2	3.485	1.0055	0.74
31-Jan-94	8.2	7.83	32.83	0.3	0.3	0.2	3.485	1.0055	0.74
1-Feb-94	5.9	6.62	31.62	0.3	0.3	0.2	3.485	1.0055	0.74
2-Feb-94	8.7	5.47	30.47	0.3	0.3	0.2	3.485	1.0055	0.74
3-Feb-94	16.6	4.73	29.73	0.3	0.3	0.2	3.485	1.0055	0.74
4-Feb-94	16.3	5.10	30.10	0.3	0.3	0.2	3.485	1.0055	0.74
5-Feb-94	15.9	5.10	30.10	0.3	0.3	0.2	3.485	1.0055	0.74
6-Feb-94	14.5	6.22	31.22	0.3	0.3	0.2	3.485	1.0055	0.74
7-Feb-94	14.5	6.62	31.62	0.3	0.3	0.2	3.485	1.0055	0.74
8-Feb-94	13.4	6.62	31.62	0.3	0.3	0.2	3.485	1.0055	0.74
9-Feb-94	13.0	6.62	31.62	0.3	0.3	0.2	3.485	1.0055	0.74
10-Feb-94	8.5	6.50	31.50	0.3	0.3	0.2	3.485	1.0055	0.74
11-Feb-94	7.1	6.50	31.50	0.3	0.3	0.2	3.485	1.0055	0.74
12-Feb-94	7.4	4.73	29.73	0.3	0.3	0.2	3.485	1.0055	0.74
13-Feb-94	7.6	3.38	28.38	0.3	0.3	0.2	3.485	1.06	0.74
14-Feb-94	7.1	4.38	29.38	0.3	0.35	0.2	3.485	1.07	0.74
15-Feb-94	22.7	4.05	29.05	0.3	0.35	0.2	3.485	1.07	0.74
16-Feb-94	7.1	3.72	28.72	0.3	0.35	0.2	3.485	1.07	0.74
17-Feb-94	15.2	3.72	28.72	0.3	0.35	0.2	3.485	1.07	0.74
18-Feb-94	16.1	4.05	29.05	0.3	0.35	0.2	3.485	1.07	0.74
19-Feb-94	17.6	6.22	31.22	0.3	0.35	0.2	3.485	1.07	0.74
20-Feb-94	18.3	8.68	33.68	0.3	0.35	0.2	3.485	1.07	0.74
21-Feb-94	18.6	9.55	34.55	0.3	0.35	0.2	3.485	1.07	0.74
22-Feb-94	18.6	9.55	34.55	0.3	0.35	0.2	3.485	1.07	0.74
23-Feb-94	16.1	9.55	34.55	0.3	0.35	0.2	3.485	1.07	0.74
24-Feb-94	7.9	12.83	37.83	0.3	0.35	0.2	3.485	1.07	0.74
25-Feb-94	6.3	10.92	35.92	0.3	0.35	0.2	3.485	1.07	0.74
26-Feb-94	7.3	10.00	35.00	0.3	0.35	0.2	3.485	1.07	0.74
27-Feb-94	8.5	8.25	33.25	0.2	0.35	0.2	2.37	1.07	0.74
28-Feb-94	6.4	7.00	32.00	0.16	0.35	0.2	1.8	1.07	0.74

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
1-Mar-94	7.0	4.38	29.38	0.16	0.35	0.2	1.8	1.07	0.74
2-Mar-94	12.2	5.10	30.10	0.16	0.35	0.2	1.8	1.07	0.74
3-Mar-94	21.3	6.62	31.62	0.16	0.35	0.2	1.8	1.07	0.74
4-Mar-94	19.1	8.68	33.68	0.16	0.35	0.2	1.8	1.07	0.74
5-Mar-94	19.1	8.68	33.68	0.16	0.35	0.2	1.8	1.07	0.74
6-Mar-94	19.1	11.40	36.40	0.16	0.35	0.2	1.8	1.07	0.74
7-Mar-94	19.6	10.47	35.47	0.16	0.35	0.2	1.8	1.07	0.74
8-Mar-94	19.6	9.55	34.55	0.16	0.35	0.2	1.8	1.07	0.74
9-Mar-94	18.6	10.00	35.00	0.12	0.35	0.2	1.23	1.07	0.74
10-Mar-94	8.5	9.55	34.55	0.235	0.35	0.2	1.67	1.07	0.74
11-Mar-94	6.9	8.25	33.25	0.235	0.35	0.2	1.67	1.07	0.74
12-Mar-94	6.9	6.22	31.22	0.235	0.35	0.2	1.67	1.07	0.74
13-Mar-94	9.5	7.42	32.42	0.235	0.4	0.2	1.67	1.08	0.74
14-Mar-94	7.3	6.62	31.62	0.235	0.45	0.2	1.67	1.145	0.81
15-Mar-94	5.8	5.47	30.47	0.235	0.45	0.12	1.67	1.145	0.474
16-Mar-94	10.2	4.05	29.05	0.235	0.45	0.12	1.67	1.145	0.474
17-Mar-94	18.6	3.38	28.38	0.235	0.45	0.12	1.67	1.145	0.474
18-Mar-94	20.7	3.72	28.72	0.235	0.45	0.12	1.67	1.145	0.474
19-Mar-94	22.7	5.47	30.47	0.235	0.45	0.12	1.67	1.145	0.474
20-Mar-94	24.8	8.25	33.25	0.235	0.45	0.12	1.67	1.145	0.474
21-Mar-94	27.3	10.47	35.47	0.235	0.45	0.12	1.67	1.145	0.474
22-Mar-94	28.0	10.47	35.47	0.235	0.45	0.12	1.67	1.145	0.474
23-Mar-94	22.4	9.55	34.55	0.235	0.45	0.12	1.67	1.145	0.474
24-Mar-94	20.2	9.12	34.12	0.235	0.45	0.12	1.67	1.145	0.474
25-Mar-94	11.0	7.42	32.42	0.235	0.45	0.12	1.67	1.145	0.474
26-Mar-94	8.2	3.72	28.72	0.235	0.45	0.12	1.67	1.145	0.474
27-Mar-94	7.0	1.68	26.68	0.235	0.45	0.12	1.67	1.145	0.474
28-Mar-94	6.9	1.43	26.43	0.235	0.45	0.12	1.67	1.145	0.474
29-Mar-94	8.2	0.98	25.98	0.235	0.45	0.12	1.67	1.145	0.474
30-Mar-94	12.2	0.05	25.05	0.235	0.45	0.12	1.67	1.145	0.474
31-Mar-94	18.1	2.95	27.95	0.235	0.45	0.12	1.67	1.145	0.474
1-Apr-94	22.4	2.95	27.95	0.235	0.45	0.12	1.67	1.145	0.474
2-Apr-94	23.0	2.95	27.95	0.235	0.45	0.12	1.67	1.145	0.474
3-Apr-94	23.6	2.95	27.95	0.235	0.45	0.12	1.67	1.145	0.474
4-Apr-94	24.8	2.95	27.95	0.235	0.45	0.12	1.67	1.145	0.474
5-Apr-94	25.1	2.95	27.95	0.235	0.45	0.12	1.67	1.145	0.474
6-Apr-94	23.0	5.83	30.83	0.235	0.45	0.12	1.67	1.145	0.474
7-Apr-94	15.2	4.73	29.73	0.235	0.5	0.12	1.67	1.21	0.474
8-Apr-94	14.3	4.73	29.73	0.35	0.32	0.12	2.11	0.8715	0.474

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
9-Apr-94	12.6	4.39	29.39	0.3	0.32	0.12	2.87	0.8715	0.474
10-Apr-94	19.6	4.05	29.05	0.3	0.32	0.12	2.87	0.8715	0.474
11-Apr-94	23.6	5.47	30.47	0.3	0.32	0.12	2.87	0.8715	0.474
12-Apr-94	26.7	9.55	34.55	0.3	0.32	0.12	2.87	0.8715	0.474
13-Apr-94	23.0	13.33	38.33	0.3	0.32	0.12	2.87	0.8715	0.474
14-Apr-94	16.6	12.83	37.83	0.3	0.32	0.12	2.87	0.8715	0.474
15-Apr-94	13.8	11.87	36.87	0.3	0.32	0.12	2.87	0.8715	0.474
16-Apr-94	21.8	13.33	38.33	0.3	0.32	0.12	2.87	0.8715	0.474
17-Apr-94	43.1	20.85	45.85	0.3	0.32	0.12	2.87	0.8715	0.474
18-Apr-94	37.4	33.30	58.30	0.3	0.32	0.12	2.87	0.8715	0.474
19-Apr-94	22.4	32.63	57.63	0.3	0.32	0.12	2.87	0.8715	0.474
20-Apr-94	19.6	31.97	56.97	0.3	0.32	0.12	2.87	0.8715	0.474
21-Apr-94	29.3	32.63	57.63	0.3	0.32	0.12	2.87	0.8715	0.474
22-Apr-94	21.8	36.00	61.00	0.3	0.32	0.12	2.87	0.8715	0.474
23-Apr-94	12.8	35.32	60.32	0.3	0.32	0.12	2.87	0.8715	0.474
24-Apr-94	9.5	31.97	56.97	0.3	0.32	0.12	2.87	0.8715	0.474
25-Apr-94	9.0	28.10	53.10	0.3	0.32	0.12	2.87	0.8715	0.474
26-Apr-94	9.2	24.98	49.98	0.3	0.32	0.12	2.87	0.8715	0.474
27-Apr-94	15.2	23.18	48.18	0.3	0.32	0.12	2.87	0.8715	0.474
28-Apr-94	11.8	23.18	48.18	0.3	0.32	0.12	2.87	0.8715	0.474
29-Apr-94	39.0	29.37	54.37	0.3	0.32	0.12	2.87	0.8715	0.474
30-Apr-94	52.2	47.45	72.45	0.3	0.32	0.12	2.87	0.8715	0.474
1-May-94	65.6	71.42	96.42	0.3	0.32	0.12	2.87	0.8715	0.474
2-May-94	56.1	103.83	128.83	0.3	0.32	0.12	2.87	0.8715	0.474
3-May-94	44.9	105.73	130.73	0.3	0.32	0.12	2.87	0.8715	0.474
4-May-94	41.4	107.65	132.65	0.3	0.32	0.12	2.87	0.8715	0.474
5-May-94	29.3	115.40	140.40	0.3	0.32	0.12	2.87	0.8715	0.474
6-May-94	37.4	145.88	170.88	0.3	0.32	0.12	2.87	0.8715	0.474
7-May-94	50.3	219.52	244.52	0.3	0.32	0.12	2.87	0.8715	0.474
8-May-94	60.2	280.50	305.50	0.3	0.32	0.12	2.87	0.8715	0.474
9-May-94	45.8	270.48	295.48	0.3	0.14	0.12	2.87	0.533	0.474
10-May-94	42.3	250.75	275.75	0.3	0.17	0.12	2.87	0.564	0.474
11-May-94	40.6	233.82	258.82	0.3	0.17	0.12	2.87	0.564	0.474
12-May-94	43.1	210.20	235.20	0.3	0.17	0.12	2.87	0.564	0.474
13-May-94	73.5	248.32	273.32	0.3	0.17	0.12	2.87	0.564	0.474
14-May-94	49.4	258.12	283.12	0.3	0.17	0.12	2.87	0.564	0.474
15-May-94	43.1	231.43	256.43	0.3	0.17	0.12	2.87	0.564	0.474
16-May-94	39.8	200.95	225.95	0.3	0.17	0.12	2.87	0.564	0.474
17-May-94	44.0	187.28	212.28	0.3	0.17	0.12	2.87	0.564	0.474

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
18-May-94	57.1	203.25	228.25	0.3	0.17	0.12	2.87	0.564	0.474
19-May-94	41.4	205.55	230.55	0.3	0.17	0.12	2.87	0.564	0.474
20-May-94	35.1	194.08	219.08	0.3	0.17	0.12	2.87	0.564	0.474
21-May-94	32.1	173.90	198.90	0.3	0.17	0.12	2.87	0.564	0.474
22-May-94	30.7	156.48	181.48	0.3	0.17	0.12	2.87	0.564	0.474
23-May-94	31.4	141.70	166.70	0.3	0.17	0.12	2.87	0.564	0.474
24-May-94	32.1	127.35	152.35	0.25	0.17	0.12	3.63	0.564	0.474
25-May-94	30.7	119.35	144.35	0.25	0.17	0.12	3.84	0.564	0.474
26-May-94	34.3	111.50	136.50	0.25	0.17	0.12	3.84	0.564	0.474
27-May-94	35.1	105.73	130.73	0.25	0.17	0.12	3.84	0.564	0.474
28-May-94	48.5	123.33	148.33	0.25	0.17	0.12	3.84	0.564	0.474
29-May-94	48.5	156.48	181.48	0.25	0.17	0.12	3.84	0.564	0.474
30-May-94	39.8	165.13	190.13	0.25	0.17	0.12	3.84	0.564	0.474
31-May-94	36.6	167.30	192.30	0.25	0.17	0.12	3.84	0.564	0.474
1-Jun-94	35.8	156.48	181.48	0.25	0.17	0.12	3.84	0.564	0.474
2-Jun-94	32.9	141.70	166.70	0.25	0.17	0.12	3.84	0.564	0.474
3-Jun-94	31.1	130.38	155.38	0.25	0.17	0.12	3.84	0.564	0.474
4-Jun-94	30.7	119.35	144.35	0.25	0.17	0.12	3.84	0.564	0.474
5-Jun-94	30.4	107.65	132.65	0.25	0.17	0.12	3.84	0.564	0.474
6-Jun-94	29.0	96.32	121.32	0.25	0.2	0.12	4.05	0.595	0.474
7-Jun-94	26.7	87.17	112.17	0.185	0.2	0.12	2.81	0.5755	0.474
8-Jun-94	30.0	76.55	101.55	0.185	0.2	0.12	2.81	0.5755	0.474
9-Jun-94	39.0	73.12	98.12	0.185	0.2	0.12	2.81	0.5755	0.474
10-Jun-94	43.1	73.12	98.12	0.185	0.2	0.12	2.81	0.5755	0.474
11-Jun-94	42.7	68.05	93.05	0.185	0.2	0.12	2.81	0.5755	0.474
12-Jun-94	42.7	63.92	88.92	0.185	0.2	0.12	2.81	0.5755	0.474
13-Jun-94	42.7	61.47	86.47	0.185	0.2	0.12	2.81	0.5755	0.474
14-Jun-94	47.5	59.05	84.05	0.185	0.2	0.12	2.81	0.5755	0.474
15-Jun-94	44.0	59.85	84.85	0.185	0.2	0.12	2.81	0.5755	0.474
16-Jun-94	37.4	59.85	84.85	0.185	0.2	0.12	2.81	0.5755	0.474
17-Jun-94	35.8	58.25	83.25	0.185	0.2	0.12	2.81	0.5755	0.474
18-Jun-94	34.0	56.67	81.67	0.185	0.2	0.12	2.81	0.5755	0.474
19-Jun-94	37.8	55.10	80.10	0.185	0.2	0.12	2.81	0.5755	0.474
20-Jun-94	37.0	55.88	80.88	0.185	0.2	0.12	2.81	0.5755	0.474
21-Jun-94	36.6	57.47	82.47	0.185	0.2	0.12	2.81	0.5755	0.474
22-Jun-94	38.2	55.10	80.10	0.185	0.2	0.12	2.81	0.5755	0.474
23-Jun-94	37.8	53.55	78.55	0.185	0.2	0.12	2.81	0.5755	0.474
24-Jun-94	37.0	51.23	76.23	0.185	0.2	0.12	2.81	0.5755	0.474
25-Jun-94	36.2	51.23	76.23	0.185	0.2	0.12	2.81	0.5755	0.474

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
26-Jun-94	35.8	52.00	77.00	0.185	0.2	0.12	2.81	0.5755	0.474
27-Jun-94	35.1	52.00	77.00	0.185	0.2	0.04	2.81	0.5755	0.14
28-Jun-94	34.7	52.00	77.00	0.185	0.2	0.075	2.81	0.556	0.1135
29-Jun-94	34.3	49.80	74.80	0.185	0.18	0.075	2.81	0.6455	0.1135
30-Jun-94	29.3	48.95	73.95	0.185	0.18	0.075	2.81	0.6455	0.1135
1-Jul-94	27.3	44.50	69.50	0.185	0.18	0.075	2.81	0.6455	0.1135
2-Jul-94	28.7	43.03	68.03	0.185	0.18	0.075	2.81	0.6455	0.1135
3-Jul-94	32.5	47.45	72.45	0.12	0.18	0.075	1.57	0.6455	0.1135
4-Jul-94	41.9	63.10	88.10	0.16	0.18	0.075	2.19	0.6455	0.1135
5-Jul-94	38.2	63.10	88.10	0.16	0.18	0.075	2.19	0.6455	0.1135
6-Jul-94	41.0	63.92	88.92	0.16	0.18	0.075	2.19	0.6455	0.1135
7-Jul-94	43.1	66.38	91.38	0.16	0.18	0.075	2.19	0.6455	0.1135
8-Jul-94	44.0	64.73	89.73	0.16	0.18	0.075	2.19	0.6455	0.1135
9-Jul-94	44.9	64.73	89.73	0.16	0.18	0.075	2.19	0.6455	0.1135
10-Jul-94	50.8	66.38	91.38	0.16	0.18	0.075	2.19	0.6455	0.1135
11-Jul-94	52.2	69.73	94.73	0.16	0.18	0.075	2.19	0.6455	0.1135
12-Jul-94	50.3	68.88	93.88	0.16	0.18	0.075	2.19	0.6455	0.1135
13-Jul-94	52.2	68.05	93.05	0.16	0.18	0.075	2.19	0.6455	0.1135
14-Jul-94	35.1	64.73	89.73	0.16	0.18	0.075	2.19	0.6455	0.1135
15-Jul-94	19.1	56.67	81.67	0.16	0.16	0.075	2.19	0.735	0.1135
16-Jul-94	16.6	48.95	73.95	0.16	0.23	0.075	2.19	0.651	0.1135
17-Jul-94	14.9	43.03	68.03	0.16	0.23	0.075	2.19	0.651	0.1135
18-Jul-94	14.7	38.77	63.77	0.16	0.23	0.075	2.19	0.651	0.1135
19-Jul-94	13.4	36.00	61.00	0.16	0.23	0.075	2.19	0.651	0.1135
20-Jul-94	13.0	33.30	58.30	0.16	0.23	0.075	2.19	0.651	0.1135
21-Jul-94	19.1	31.97	56.97	0.16	0.23	0.075	2.19	0.651	0.1135
22-Jul-94	22.4	33.30	58.30	0.16	0.23	0.075	2.19	0.651	0.1135
23-Jul-94	21.3	30.65	55.65	0.16	0.23	0.075	2.19	0.651	0.1135
24-Jul-94	19.1	26.83	51.83	0.16	0.23	0.075	2.19	0.651	0.1135
25-Jul-94	21.8	26.83	51.83	0.16	0.23	0.075	2.19	0.651	0.1135
26-Jul-94	23.0	26.83	51.83	0.16	0.23	0.075	2.19	0.651	0.1135
27-Jul-94	19.1	25.60	50.60	0.16	0.23	0.075	2.19	0.651	0.1135
28-Jul-94	18.1	24.38	49.38	0.16	0.23	0.075	2.19	0.651	0.1135
29-Jul-94	18.6	23.18	48.18	0.16	0.23	0.075	2.19	0.651	0.1135
30-Jul-94	19.1	21.42	46.42	0.16	0.23	0.075	2.19	0.651	0.1135
31-Jul-94	18.8	20.27	45.27	0.16	0.23	0.075	2.19	0.651	0.1135
1-Aug-94	19.1	20.27	45.27	0.16	0.23	0.075	2.19	0.651	0.1135
2-Aug-94	19.4	20.27	45.27	0.2	0.23	0.075	2.81	0.651	0.1135
3-Aug-94	19.1	19.70	44.70	0.3	0.23	0.075	2.245	0.651	0.1135

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
4-Aug-94	18.8	19.70	44.70	0.3	0.23	0.075	2.245	0.651	0.1135
5-Aug-94	19.6	20.27	45.27	0.3	0.23	0.075	2.245	0.651	0.1135
6-Aug-94	19.6	19.70	44.70	0.3	0.23	0.075	2.245	0.651	0.1135
7-Aug-94	19.4	19.15	44.15	0.3	0.23	0.11	2.245	0.651	0.09
8-Aug-94	21.0	19.15	44.15	0.3	0.23	0.15	2.245	0.651	0.271
9-Aug-94	22.1	18.03	43.03	0.3	0.23	0.15	2.245	0.651	0.271
10-Aug-94	20.7	18.58	43.58	0.3	0.23	0.15	2.245	0.651	0.271
11-Aug-94	16.3	19.70	44.70	0.3	0.23	0.15	2.245	0.651	0.271
12-Aug-94	15.4	17.50	42.50	0.3	0.3	0.15	2.245	0.567	0.271
13-Aug-94	13.6	16.42	41.42	0.3	0.3	0.15	2.245	0.53	0.271
14-Aug-94	17.6	15.88	40.88	0.3	0.3	0.15	2.245	0.53	0.271
15-Aug-94	27.3	15.88	40.88	0.3	0.3	0.15	2.245	0.53	0.271
16-Aug-94	29.3	17.63	42.63	0.3	0.3	0.15	2.245	0.53	0.271
17-Aug-94	34.3	19.70	44.70	0.3	0.3	0.15	2.245	0.53	0.271
18-Aug-94	42.3	24.98	49.98	0.3	0.3	0.15	2.245	0.53	0.271
19-Aug-94	44.4	31.32	56.32	0.3	0.3	0.15	2.245	0.53	0.271
20-Aug-94	44.9	32.63	57.63	0.3	0.3	0.15	2.245	0.53	0.271
21-Aug-94	43.1	33.97	58.97	0.3	0.3	0.15	2.245	0.53	0.271
22-Aug-94	43.1	35.32	60.32	0.3	0.3	0.15	2.245	0.53	0.271
23-Aug-94	45.8	38.07	63.07	0.3	0.3	0.15	2.245	0.53	0.271
24-Aug-94	41.4	40.18	65.18	0.3	0.3	0.15	2.245	0.53	0.271
25-Aug-94	34.0	38.07	63.07	0.3	0.3	0.15	2.245	0.53	0.271
26-Aug-94	34.7	35.32	60.32	0.3	0.3	0.15	2.245	0.53	0.271
27-Aug-94	34.0	36.68	61.68	0.3	0.3	0.15	2.245	0.53	0.271
28-Aug-94	30.4	36.00	61.00	0.3	0.3	0.15	2.245	0.53	0.271
29-Aug-94	34.0	35.32	60.32	0.3	0.3	0.15	2.245	0.53	0.271
30-Aug-94	34.7	35.32	60.32	0.3	0.3	0.15	2.245	0.53	0.271
31-Aug-94	38.2	36.68	61.68	0.3	0.3	0.15	2.245	0.53	0.271
1-Sep-94	41.4	40.87	65.87	0.3	0.3	0.15	2.245	0.53	0.271
2-Sep-94	46.2	41.60	66.60	0.3	0.3	0.15	2.245	0.53	0.271
3-Sep-94	44.9	40.18	65.18	0.3	0.3	0.15	2.245	0.53	0.271
4-Sep-94	44.0	40.88	65.88	0.3	0.3	0.15	2.245	0.53	0.271
5-Sep-94	39.8	42.32	67.32	0.3	0.3	0.15	2.245	0.53	0.271
6-Sep-94	33.6	39.47	64.47	0.3	0.3	0.15	2.245	0.53	0.271
7-Sep-94	31.4	36.68	61.68	0.3	0.3	0.15	2.245	0.53	0.271
8-Sep-94	23.6	36.00	61.00	0.3	0.3	0.15	2.245	0.53	0.271
9-Sep-94	19.6	34.63	59.63	0.3	0.3	0.15	2.245	0.53	0.271
10-Sep-94	18.6	36.68	61.68	0.3	0.3	0.15	2.245	0.53	0.271
11-Sep-94	20.7	39.47	64.47	0.3	0.3	0.15	2.245	0.53	0.271

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
12-Sep-94	21.3	37.37	62.37	0.3	0.3	0.15	2.245	0.53	0.271
13-Sep-94	18.6	37.37	62.37	0.3	0.3	0.15	2.245	0.53	0.271
14-Sep-94	24.2	36.68	61.68	0.3	0.3	0.15	2.245	0.53	0.271
15-Sep-94	30.4	36.00	61.00	0.3	0.3	0.15	2.245	0.53	0.271
16-Sep-94	30.4	36.00	61.00	0.3	0.3	0.15	2.245	0.53	0.271
17-Sep-94	30.4	33.30	58.30	0.3	0.3	0.15	2.245	0.53	0.271
18-Sep-94	29.7	32.63	57.63	0.3	0.3	0.15	2.245	0.53	0.271
19-Sep-94	30.0	30.65	55.65	0.3	0.3	0.15	2.245	0.53	0.271
20-Sep-94	30.7	33.30	58.30	0.3	0.3	0.15	2.245	0.53	0.271
21-Sep-94	29.3	29.37	54.37	0.3	0.3	0.15	2.245	0.53	0.271
22-Sep-94	25.1	30.02	55.02	0.3	0.3	0.15	2.245	0.53	0.271
23-Sep-94	21.0	30.65	55.65	0.3	0.3	0.15	2.245	0.493	0.271
24-Sep-94	19.4	26.83	51.83	0.4	0.3	0.15	1.68	0.4865	0.271
25-Sep-94	19.6	24.98	49.98	0.325	0.3	0.15	2.505	0.4865	0.271
26-Sep-94	22.1	24.98	49.98	0.325	0.3	0.15	2.505	0.4865	0.271
27-Sep-94	19.1	23.78	48.78	0.325	0.3	0.15	2.505	0.4865	0.271
28-Sep-94	25.4	25.60	50.60	0.325	0.3	0.15	2.505	0.4865	0.271
29-Sep-94	28.7	33.30	58.30	0.325	0.3	0.15	2.505	0.4865	0.271
30-Sep-94	27.0	34.63	59.63	0.325	0.3	0.15	2.505	0.4865	0.271
1-Oct-94	25.4	31.97	56.97	0.325	0.3	0.15	2.505	0.4865	0.271
2-Oct-94	24.2	30.65	55.65	0.325	0.3	0.15	2.505	0.4865	0.271
3-Oct-94	23.6	30.65	55.65	0.325	0.3	0.15	2.505	0.4865	0.271
4-Oct-94	24.2	33.30	58.30	0.325	0.3	0.15	2.505	0.4865	0.271
5-Oct-94	25.4	31.97	56.97	0.325	0.3	0.15	2.505	0.4865	0.271
6-Oct-94	24.8	30.65	55.65	0.325	0.3	0.15	2.505	0.4865	0.271
7-Oct-94	24.8	30.65	55.65	0.325	0.3	0.15	2.505	0.4865	0.271
8-Oct-94	24.8	31.97	56.97	0.325	0.3	0.15	2.505	0.4865	0.271
9-Oct-94	24.8	33.22	58.22	0.325	0.3	0.15	2.505	0.4865	0.271
10-Oct-94	24.2	37.37	62.37	0.325	0.3	0.15	2.505	0.4865	0.271
11-Oct-94	23.6	40.18	65.18	0.325	0.3	0.15	2.505	0.4865	0.271
12-Oct-94	18.1	38.77	63.77	0.325	0.3	0.15	2.505	0.4865	0.271
13-Oct-94	18.1	37.37	62.37	0.325	0.3	0.15	2.505	0.4865	0.271
14-Oct-94	18.1	36.00	61.00	0.325	0.3	0.15	2.505	0.4865	0.271
15-Oct-94	18.6	36.00	61.00	0.325	0.3	0.15	2.505	0.4865	0.271
16-Oct-94	20.2	38.77	63.77	0.325	0.3	0.15	2.505	0.4865	0.271
17-Oct-94	20.7	40.18	65.18	0.325	0.3	0.15	2.505	0.4865	0.271
18-Oct-94	20.2	41.60	66.60	0.325	0.3	0.15	2.505	0.4865	0.271
19-Oct-94	19.6	41.60	66.60	0.325	0.3	0.15	2.505	0.4865	0.271
20-Oct-94	13.0	40.18	65.18	0.25	0.3	0.15	3.33	0.4865	0.271

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
21-Oct-94	9.5	37.37	62.37	0.22	0.3	0.15	3.02	0.4865	0.271
22-Oct-94	8.9	38.77	63.77	0.22	0.3	0.15	3.02	0.4865	0.271
23-Oct-94	11.4	38.77	63.77	0.22	0.3	0.15	3.02	0.48	0.271
24-Oct-94	9.5	37.37	62.37	0.22	0.3	0.15	3.02	0.5335	0.271
25-Oct-94	8.2	33.30	58.30	0.22	0.3	0.15	3.02	0.5335	0.271
26-Oct-94	10.6	26.83	51.83	0.22	0.3	0.15	3.02	0.5335	0.271
27-Oct-94	11.4	25.60	50.60	0.22	0.3	0.15	3.02	0.5335	0.271
28-Oct-94	15.2	26.83	51.83	0.22	0.3	0.15	3.02	0.5335	0.271
29-Oct-94	15.6	26.83	51.83	0.22	0.3	0.15	3.02	0.5335	0.271
30-Oct-94	16.1	25.60	50.60	0.22	0.3	0.15	3.02	0.5335	0.271
31-Oct-94	17.1	25.60	50.60	0.22	0.3	0.15	3.02	0.5335	0.271
1-Nov-94	15.2	24.38	49.38	0.22	0.3	0.15	3.02	0.5335	0.271
2-Nov-94	18.6	23.18	48.18	0.22	0.3	0.15	3.02	0.5335	0.271
3-Nov-94	19.6	23.18	48.18	0.22	0.3	0.15	3.02	0.5335	0.271
4-Nov-94	17.6	23.18	48.18	0.19	0.3	0.15	2.71	0.5335	0.271
5-Nov-94	17.6	23.18	48.18	0.295	0.3	0.15	4.005	0.5335	0.271
6-Nov-94	17.1	23.18	48.18	0.295	0.3	0.15	4.005	0.5335	0.271
7-Nov-94	17.6	23.18	48.18	0.295	0.3	0.15	4.005	0.5335	0.271
8-Nov-94	17.1	23.18	48.18	0.295	0.3	0.15	4.005	0.5335	0.271
9-Nov-94	18.6	22.00	47.00	0.295	0.3	0.15	4.005	0.5335	0.271
10-Nov-94	22.4	22.00	47.00	0.295	0.3	0.15	4.005	0.5335	0.271
11-Nov-94	23.0	22.00	47.00	0.295	0.3	0.15	4.005	0.5335	0.271
12-Nov-94	23.6	22.00	47.00	0.295	0.3	0.15	4.005	0.5335	0.271
13-Nov-94	23.6	22.00	47.00	0.295	0.3	0.15	4.005	0.5335	0.271
14-Nov-94	23.0	23.18	48.18	0.295	0.3	0.15	4.005	0.5335	0.271
15-Nov-94	22.4	23.18	48.18	0.295	0.3	0.15	4.005	0.5335	0.271
16-Nov-94	21.3	23.18	48.18	0.295	0.3	0.15	4.005	0.5335	0.271
17-Nov-94	13.0	24.38	49.38	0.295	0.3	0.15	4.005	0.5335	0.271
18-Nov-94	10.6	22.00	47.00	0.295	0.3	0.15	4.005	0.5335	0.271
19-Nov-94	12.6	20.85	45.85	0.295	0.3	0.15	4.005	0.5335	0.271
20-Nov-94	9.9	20.85	45.85	0.295	0.3	0.15	4.005	0.5335	0.271
21-Nov-94	11.0	18.58	43.58	0.295	0.3	0.15	4.005	0.587	0.271
22-Nov-94	12.6	18.58	43.58	0.295	0.325	0.15	4.005	0.7055	0.271
23-Nov-94	11.0	17.50	42.50	0.295	0.325	0.15	4.005	0.7055	0.271
24-Nov-94	18.6	17.50	42.50	0.295	0.325	0.15	4.005	0.7055	0.271
25-Nov-94	20.2	16.42	41.42	0.295	0.325	0.15	4.005	0.7055	0.271
26-Nov-94	20.7	16.42	41.42	0.295	0.325	0.15	4.005	0.7055	0.271
27-Nov-94	21.8	18.58	43.58	0.295	0.325	0.15	4.005	0.7055	0.271
28-Nov-94	23.0	20.85	45.85	0.295	0.325	0.15	4.005	0.7055	0.271

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
29-Nov-94	22.4	20.85	45.85	0.295	0.325	0.15	4.005	0.7055	0.271
30-Nov-94	21.3	22.00	47.00	0.295	0.325	0.15	4.005	0.7055	0.271
1-Dec-94	13.0	23.18	48.18	0.295	0.325	0.15	4.005	0.7055	0.271
2-Dec-94	10.2	22.00	47.00	0.295	0.325	0.15	4.005	0.7055	0.271
3-Dec-94	16.1	19.70	44.70	0.295	0.325	0.15	4.005	0.7055	0.271
4-Dec-94	5.6	18.58	43.58	0.295	0.325	0.15	4.005	0.7055	0.271
5-Dec-94	5.4	15.37	40.37	0.295	0.325	0.15	4.005	0.7055	0.271
6-Dec-94	4.5	13.33	38.33	0.295	0.325	0.15	4.005	0.7055	0.271
7-Dec-94	4.2	11.40	36.40	0.4	0.325	0.15	5.3	0.7055	0.271
8-Dec-94	5.9	9.55	34.55	0.35	0.325	0.15	4.55	0.7055	0.271
9-Dec-94	4.2	9.55	34.55	0.35	0.325	0.15	4.55	0.7055	0.271
10-Dec-94	4.5	9.55	34.55	0.35	0.325	0.15	4.55	0.7055	0.271
11-Dec-94	5.6	9.55	34.55	0.35	0.325	0.15	4.55	0.7055	0.271
12-Dec-94	7.0	9.55	34.55	0.35	0.325	0.15	4.55	0.7055	0.271
13-Dec-94	10.2	9.55	34.55	0.35	0.325	0.15	4.55	0.7055	0.271
14-Dec-94	14.3	10.47	35.47	0.35	0.325	0.15	4.55	0.7055	0.271
15-Dec-94	10.2	11.40	36.40	0.35	0.325	0.15	4.55	0.7055	0.271
16-Dec-94	7.0	11.40	36.40	0.35	0.325	0.15	4.55	0.7055	0.271
17-Dec-94	5.6	9.55	34.55	0.35	0.325	0.15	4.55	0.7055	0.271
18-Dec-94	4.9	9.55	34.55	0.35	0.325	0.15	4.55	0.7055	0.271
19-Dec-94	5.4	7.00	32.00	0.35	0.325	0.15	4.55	0.7055	0.271
20-Dec-94	6.2	6.22	31.22	0.35	0.325	0.15	4.55	0.7055	0.271
21-Dec-94	6.7	7.00	32.00	0.35	0.325	0.15	4.55	0.7055	0.271
22-Dec-94	9.5	6.22	31.22	0.35	0.325	0.15	4.55	0.7055	0.271
23-Dec-94	10.6	6.22	31.22	0.35	0.325	0.15	4.55	0.7055	0.271
24-Dec-94	10.6	5.47	30.47	0.35	0.325	0.15	4.55	0.7055	0.271
25-Dec-94	10.2	6.22	31.22	0.35	0.325	0.15	4.55	0.7055	0.271
26-Dec-94	10.2	7.00	32.00	0.35	0.325	0.15	4.55	0.7055	0.271
27-Dec-94	9.9	7.00	32.00	0.35	0.325	0.15	4.55	0.7055	0.271
28-Dec-94	7.6	6.22	31.22	0.35	0.325	0.15	4.55	0.7055	0.271
29-Dec-94	5.6	5.47	30.47	0.35	0.325	0.15	4.55	0.7055	0.271
30-Dec-94	4.7	7.00	32.00	0.35	0.325	0.15	4.55	0.7055	0.271
31-Dec-94	4.2	5.47	30.47	0.35	0.325	0.15	4.55	0.7055	0.271
1-Jan-95			25.00	0.35	0.325	0.15	4.55	0.7055	0.271
2-Jan-95			25.00	0.35	0.325	0.15	4.55	0.7055	0.271
3-Jan-95	3.7	5.28	30.28	0.3	0.325	0.15	3.8	0.7055	0.271
4-Jan-95			25.00	0.275	0.325	0.15	3.575	0.7055	0.271
5-Jan-95			25.00	0.275	0.325	0.15	3.575	0.7055	0.271
6-Jan-95			25.00	0.275	0.325	0.15	3.575	0.7055	0.271

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
7-Jan-95			25.00	0.275	0.325	0.15	3.575	0.7055	0.271
8-Jan-95			25.00	0.275	0.325	0.15	3.575	0.7055	0.271
9-Jan-95			25.00	0.275	0.325	0.15	3.575	0.7055	0.271
10-Jan-95			25.00	0.275	0.325	0.15	3.575	0.7055	0.271
11-Jan-95			25.00	0.275	0.325	0.15	3.575	0.7055	0.271
12-Jan-95			25.00	0.275	0.325	0.15	3.575	0.7055	0.271
13-Jan-95			25.00	0.275	0.325	0.15	3.575	0.7055	0.271
14-Jan-95			25.00	0.275	0.325	0.15	3.575	0.7055	0.271
15-Jan-95			25.00	0.275	0.325	0.15	3.575	0.7055	0.271
16-Jan-95			25.00	0.275	0.325	0.15	3.575	0.7055	0.271
17-Jan-95	4.7	5.10	30.10	0.275	0.35	0.15	3.575	0.824	0.271
18-Jan-95			25.00	0.275	0.475	0.15	3.575	0.912	0.271
19-Jan-95			25.00	0.275	0.475	0.15	3.575	0.912	0.271
20-Jan-95			25.00	0.275	0.475	0.15	3.575	0.912	0.271
21-Jan-95			25.00	0.275	0.475	0.15	3.575	0.912	0.271
22-Jan-95			25.00	0.275	0.475	0.19	3.575	0.912	0.45
23-Jan-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
24-Jan-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
25-Jan-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
26-Jan-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
27-Jan-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
28-Jan-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
29-Jan-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
30-Jan-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
31-Jan-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
1-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
2-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
3-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
4-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
5-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
6-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
7-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
8-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
9-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
10-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
11-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
12-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
13-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
14-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
15-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
16-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
17-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
18-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
19-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
20-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
21-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
22-Feb-95			25.00	0.275	0.475	0.18	3.575	0.912	0.5365
23-Feb-95	5.7	5.70	30.70	0.25	0.475	0.18	3.35	0.912	0.5365
24-Feb-95			25.00	0.21	0.475	0.18	2.565	0.912	0.5365
25-Feb-95			25.00	0.21	0.6	0.18	2.565	1	0.5365
26-Feb-95			25.00	0.21	0.7	0.18	2.565	1.09	0.5365
27-Feb-95			25.00	0.21	0.7	0.18	2.565	1.09	0.5365
28-Feb-95			25.00	0.21	0.7	0.18	2.565	1.09	0.5365
1-Mar-95			25.00	0.21	0.7	0.18	2.565	1.09	0.5365
2-Mar-95			25.00	0.21	0.7	0.18	2.565	1.09	0.5365
3-Mar-95			25.00	0.21	0.7	0.18	2.565	1.09	0.5365
4-Mar-95	33.2	33.20	58.20	0.17	0.7	0.18	1.78	1.09	0.5365
5-Mar-95			25.00	0.21	0.7	0.18	2.41	1.09	0.5365
6-Mar-95			25.00	0.21	0.7	0.18	2.41	1.09	0.5365
7-Mar-95			25.00	0.21	0.7	0.18	2.41	1.09	0.5365
8-Mar-95			25.00	0.21	0.7	0.18	2.41	1.09	0.5365
9-Mar-95			25.00	0.21	0.7	0.18	2.41	1.09	0.5365
10-Mar-95			25.00	0.21	0.7	0.18	2.41	1.09	0.5365
11-Mar-95			25.00	0.21	0.7	0.18	2.41	1.09	0.5365
12-Mar-95			25.00	0.21	0.7	0.18	2.41	1.09	0.5365
13-Mar-95			25.00	0.21	0.8	0.17	2.41	1.18	0.62
14-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
15-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
16-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
17-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
18-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
19-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
20-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
21-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
22-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
23-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
24-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
25-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
26-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
27-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
28-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
29-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
30-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
31-Mar-95			25.00	0.21	0.775	0.105	2.41	1.09	0.3525
1-Apr-95	13.0	13.89	38.89	0.21	0.775	0.105	2.41	1.09	0.3525
2-Apr-95	15.2	16.09	41.09	0.21	0.775	0.105	2.41	1.09	0.3525
3-Apr-95	10.2	11.16	36.16	0.21	0.775	0.105	2.41	1.09	0.3525
4-Apr-95	10.1	10.99	35.99	0.21	0.775	0.105	2.41	1.09	0.3525
5-Apr-95	10.1	10.99	35.99	0.21	0.775	0.105	2.41	1.09	0.3525
6-Apr-95	5.4	6.31	31.31	0.21	0.775	0.105	2.41	1.09	0.3525
7-Apr-95	4.5	5.38	30.38	0.25	0.775	0.105	3.04	1.09	0.3525
8-Apr-95	5.6	6.56	31.56	0.215	0.775	0.105	3.105	1.09	0.3525
9-Apr-95	8.2	9.13	34.13	0.215	0.75	0.105	3.105	1	0.3525
10-Apr-95	9.2	10.11	35.11	0.215	0.725	0.105	3.105	1.07	0.3525
11-Apr-95	9.5	10.24	35.24	0.215	0.725	0.105	3.105	1.07	0.3525
12-Apr-95	10.1	10.77	35.77	0.215	0.725	0.105	3.105	1.07	0.3525
13-Apr-95	17.6	18.25	43.25	0.215	0.725	0.105	3.105	1.07	0.3525
14-Apr-95	17.3	18.02	43.02	0.215	0.725	0.105	3.105	1.07	0.3525
15-Apr-95	19.4	20.07	45.07	0.215	0.725	0.105	3.105	1.07	0.3525
16-Apr-95	22.4	23.12	48.12	0.215	0.725	0.105	3.105	1.07	0.3525
17-Apr-95	22.4	23.12	48.12	0.215	0.725	0.105	3.105	1.07	0.3525
18-Apr-95	22.4	23.12	48.12	0.215	0.725	0.105	3.105	1.07	0.3525
19-Apr-95	19.1	19.80	44.80	0.215	0.725	0.105	3.105	1.07	0.3525
20-Apr-95	7.9	8.59	33.59	0.215	0.725	0.105	3.105	1.07	0.3525
21-Apr-95	7.6	15.78	40.78	0.215	0.725	0.105	3.105	1.07	0.3525
22-Apr-95	7.9	16.08	41.08	0.215	0.725	0.105	3.105	1.07	0.3525
23-Apr-95	7.6	15.78	40.78	0.215	0.725	0.105	3.105	1.07	0.3525
24-Apr-95	8.2	16.40	41.40	0.215	0.725	0.105	3.105	1.07	0.3525
25-Apr-95	6.7	14.90	39.90	0.215	0.725	0.105	3.105	1.07	0.3525
26-Apr-95	5.9	14.08	39.08	0.215	0.725	0.105	3.105	1.07	0.3525
27-Apr-95	11.4	19.56	44.56	0.215	0.725	0.105	3.105	1.07	0.3525
28-Apr-95	14.7	22.90	47.90	0.215	0.725	0.105	3.105	1.07	0.3525
29-Apr-95	20.2	28.36	53.36	0.215	0.725	0.105	3.105	1.07	0.3525
30-Apr-95	26.1	34.25	59.25	0.215	0.725	0.105	3.105	1.07	0.3525
1-May-95	27.0	217.29	242.29	0.215	0.725	0.105	3.105	1.07	0.3525
2-May-95	23.0	213.28	238.28	0.215	0.725	0.105	3.105	1.07	0.3525
3-May-95	15.2	205.44	230.44	0.215	0.725	0.105	3.105	1.07	0.3525

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
4-May-95	11.8	202.03	227.03	0.215	0.7	0.105	3.105	1.14	0.3525
5-May-95	18.6	208.86	233.86	0.215	0.5	0.105	3.105	0.8755	0.3525
6-May-95	26.1	216.33	241.33	0.215	0.5	0.105	3.105	0.8755	0.3525
7-May-95	27.3	217.61	242.61	0.215	0.5	0.105	3.105	0.8755	0.3525
8-May-95	23.6	78.30	103.30	0.215	0.5	0.105	3.105	0.8755	0.3525
9-May-95	26.7	96.32	121.32	0.215	0.5	0.105	3.105	0.8755	0.3525
10-May-95	20.7	101.93	126.93	0.215	0.5	0.105	3.105	0.8755	0.3525
11-May-95	23.6	101.93	126.93	0.215	0.5	0.105	3.105	0.8755	0.3525
12-May-95	24.8	96.32	121.32	0.215	0.5	0.105	3.105	0.8755	0.3525
13-May-95	26.1	88.97	113.97	0.215	0.5	0.105	3.105	0.8755	0.3525
14-May-95	24.8	83.58	108.58	0.215	0.5	0.105	3.105	0.8755	0.3525
15-May-95	23.6	76.55	101.55	0.215	0.5	0.105	3.105	0.8755	0.3525
16-May-95	22.4	73.12	98.12	0.215	0.5	0.105	3.105	0.8755	0.3525
17-May-95	30.7	69.73	94.73	0.215	0.5	0.105	3.105	0.8755	0.3525
18-May-95	23.0	68.05	93.05	0.215	0.5	0.105	3.105	0.8755	0.3525
19-May-95	22.4	64.73	89.73	0.215	0.5	0.105	3.105	0.8755	0.3525
20-May-95	17.6	61.47	86.47	0.215	0.5	0.105	3.105	0.8755	0.3525
21-May-95	17.1	59.85	84.85	0.18	0.5	0.105	3.17	0.8755	0.3525
22-May-95	16.6	55.10	80.10	0.15	0.5	0.105	2.305	0.8755	0.3525
23-May-95	14.3	52.00	77.00	0.15	0.5	0.105	2.305	0.8755	0.3525
24-May-95	16.6	48.95	73.95	0.15	0.5	0.105	2.305	0.8755	0.3525
25-May-95	28.0	47.45	72.45	0.15	0.5	0.105	2.305	0.8755	0.3525
26-May-95	32.1	52.00	77.00	0.15	0.5	0.105	2.305	0.8755	0.3525
27-May-95	32.1	53.55	78.55	0.15	0.5	0.105	2.305	0.8755	0.3525
28-May-95	31.4	52.00	77.00	0.15	0.5	0.105	2.305	0.8755	0.3525
29-May-95	30.0	50.47	75.47	0.15	0.5	0.105	2.305	0.8755	0.3525
30-May-95	31.4	50.47	75.47	0.15	0.5	0.105	2.305	0.8755	0.3525
31-May-95	29.3	52.00	77.00	0.15	0.5	0.105	2.305	0.8755	0.3525
1-Jun-95	19.6	48.95	73.95	0.15	0.5	0.105	2.305	0.8755	0.3525
2-Jun-95	18.6	47.45	72.45	0.15	0.5	0.105	2.305	0.8755	0.3525
3-Jun-95	17.3	47.45	72.45	0.15	0.5	0.105	2.305	0.8755	0.3525
4-Jun-95	13.8	48.95	73.95	0.15	0.5	0.105	2.305	0.8755	0.3525
5-Jun-95	18.1	47.45	72.45	0.15	0.5	0.105	2.305	0.8755	0.3525
6-Jun-95	19.1	43.03	68.03	0.15	0.5	0.105	2.305	0.8755	0.3525
7-Jun-95	18.6	43.77	68.77	0.15	0.5	0.105	2.305	0.8755	0.3525
8-Jun-95	26.1	43.03	68.03	0.15	0.5	0.105	2.305	0.8755	0.3525
9-Jun-95	27.3	42.32	67.32	0.15	0.5	0.105	2.305	0.8755	0.3525
10-Jun-95	28.0	43.03	68.03	0.15	0.5	0.105	2.305	0.8755	0.3525
11-Jun-95	28.7	44.50	69.50	0.15	0.5	0.105	2.305	0.8755	0.3525

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
12-Jun-95	28.7	43.03	68.03	0.15	0.5	0.105	2.305	0.8755	0.3525
13-Jun-95	28.0	41.60	66.60	0.15	0.5	0.105	2.305	0.8755	0.3525
14-Jun-95	25.7	41.60	66.60	0.15	0.5	0.105	2.305	0.8755	0.3525
15-Jun-95	18.6	38.77	63.77	0.15	0.5	0.105	2.305	0.8755	0.3525
16-Jun-95	13.0	36.00	61.00	0.15	0.5	0.105	2.305	0.8755	0.3525
17-Jun-95	15.2	33.97	58.97	0.12	0.3	0.105	1.44	0.611	0.3525
18-Jun-95	21.3	33.30	58.30	0.12	0.35	0.105	1.505	0.561	0.3525
19-Jun-95	20.2	33.30	58.30	0.12	0.35	0.105	1.505	0.561	0.3525
20-Jun-95	13.0	33.30	58.30	0.12	0.35	0.105	1.505	0.561	0.3525
21-Jun-95	17.1	34.63	59.63	0.12	0.35	0.105	1.505	0.561	0.3525
22-Jun-95	29.3	34.63	59.63	0.12	0.35	0.04	1.505	0.561	0.08
23-Jun-95	29.3	34.63	59.63	0.12	0.35	0.045	1.505	0.561	0.0765
24-Jun-95	30.7	34.63	59.63	0.12	0.35	0.045	1.505	0.561	0.0765
25-Jun-95	30.7	33.30	58.30	0.12	0.35	0.045	1.505	0.561	0.0765
26-Jun-95	30.4	33.30	58.30	0.12	0.35	0.045	1.505	0.561	0.0765
27-Jun-95	30.0	31.97	56.97	0.12	0.35	0.045	1.505	0.561	0.0765
28-Jun-95	27.0	28.10	53.10	0.12	0.35	0.045	1.505	0.561	0.0765
29-Jun-95	21.8	28.10	53.10	0.12	0.35	0.045	1.505	0.561	0.0765
30-Jun-95	15.6	26.83	51.83	0.12	0.35	0.045	1.505	0.561	0.0765
1-Jul-95	18.6	23.18	48.18	0.12	0.35	0.045	1.57	0.561	0.0765
2-Jul-95	17.6	24.38	49.38	0.21	0.35	0.045	1.52	0.561	0.0765
3-Jul-95	13.8	23.18	48.18	0.21	0.35	0.045	1.52	0.561	0.0765
4-Jul-95	14.3	23.18	48.18	0.21	0.35	0.045	1.52	0.561	0.0765
5-Jul-95	14.7	23.18	48.18	0.21	0.35	0.045	1.52	0.561	0.0765
6-Jul-95	16.1	28.10	53.10	0.21	0.35	0.045	1.52	0.561	0.0765
7-Jul-95	14.7	29.37	54.37	0.21	0.35	0.045	1.52	0.561	0.0765
8-Jul-95	14.3	28.10	53.10	0.21	0.35	0.045	1.52	0.561	0.0765
9-Jul-95	13.8	25.60	50.60	0.21	0.35	0.045	1.52	0.561	0.0765
10-Jul-95	13.0	23.18	48.18	0.21	0.35	0.045	1.52	0.561	0.0765
11-Jul-95	13.0	22.00	47.00	0.21	0.35	0.045	1.52	0.561	0.0765
12-Jul-95	13.8	24.38	49.38	0.21	0.35	0.045	1.52	0.561	0.0765
13-Jul-95	10.2	26.83	51.83	0.21	0.35	0.045	1.52	0.561	0.0765
14-Jul-95	10.2	25.60	50.60	0.21	0.35	0.045	1.52	0.561	0.0765
15-Jul-95	7.9	25.60	50.60	0.21	0.35	0.045	1.52	0.561	0.0765
16-Jul-95	7.6	25.60	50.60	0.21	0.35	0.045	1.52	0.561	0.0765
17-Jul-95	7.6	24.38	49.38	0.21	0.4	0.045	1.52	0.511	0.0765
18-Jul-95	7.6	23.18	48.18	0.21	0.325	0.045	1.52	0.4685	0.0765
19-Jul-95	8.9	19.70	44.70	0.21	0.325	0.045	1.52	0.4685	0.0765
20-Jul-95	13.0	19.70	44.70	0.21	0.325	0.045	1.52	0.4685	0.0765

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
21-Jul-95	12.6	20.85	45.85	0.21	0.325	0.045	1.52	0.4685	0.0765
22-Jul-95	14.3	22.00	47.00	0.21	0.325	0.045	1.52	0.4685	0.0765
23-Jul-95	12.2	20.85	45.85	0.21	0.325	0.045	1.52	0.4685	0.0765
24-Jul-95	11.8	19.70	44.70	0.21	0.325	0.045	1.52	0.4685	0.0765
25-Jul-95	11.8	18.58	43.58	0.21	0.325	0.045	1.52	0.4685	0.0765
26-Jul-95	13.0	20.85	45.85	0.21	0.325	0.045	1.52	0.4685	0.0765
27-Jul-95	20.7	37.37	62.37	0.21	0.325	0.045	1.52	0.4685	0.0765
28-Jul-95	16.1	44.50	69.50	0.21	0.325	0.045	1.52	0.4685	0.0765
29-Jul-95	11.8	38.77	63.77	0.21	0.325	0.045	1.52	0.4685	0.0765
30-Jul-95	9.9	34.63	59.63	0.21	0.325	0.045	1.52	0.4685	0.0765
31-Jul-95	8.9	33.30	58.30	0.21	0.325	0.045	1.52	0.4685	0.0765
1-Aug-95	8.9	30.65	55.65	0.21	0.325	0.045	1.52	0.4685	0.0765
2-Aug-95	13.4	34.63	59.63	0.21	0.325	0.045	1.52	0.4685	0.0765
3-Aug-95	27.3	33.30	58.30	0.21	0.25	0.045	1.52	0.426	0.0765
4-Aug-95	28.7	36.00	61.00	0.21	0.225	0.045	1.52	0.4225	0.0765
5-Aug-95	30.0	36.00	61.00	0.21	0.225	0.045	1.52	0.4225	0.0765
6-Aug-95	33.6	34.63	59.63	0.21	0.225	0.045	1.52	0.4225	0.0765
7-Aug-95	33.6	40.18	65.18	0.21	0.225	0.045	1.52	0.4225	0.0765
8-Aug-95	35.8	41.60	66.60	0.21	0.225	0.045	1.52	0.4225	0.0765
9-Aug-95	49.4	71.42	96.42	0.3	0.225	0.045	1.47	0.4225	0.0765
10-Aug-95	36.6	100.05	125.05	0.25	0.225	0.045	3.11	0.4225	0.0765
11-Aug-95	31.4	98.17	123.17	0.25	0.225	0.045	3.11	0.4225	0.0765
12-Aug-95	32.1	94.47	119.47	0.25	0.225	0.045	3.11	0.4225	0.0765
13-Aug-95	28.7	88.97	113.97	0.25	0.225	0.045	3.11	0.4225	0.0765
14-Aug-95	28.0	81.80	106.80	0.2	0.225	0.045	4.75	0.4225	0.0765
15-Aug-95	24.2	78.30	103.30	0.225	0.225	0.045	5.2	0.4225	0.0765
16-Aug-95	39.8	81.80	106.80	0.225	0.225	0.045	5.2	0.4225	0.0765
17-Aug-95	44.9	87.17	112.17	0.225	0.225	0.045	5.2	0.4225	0.0765
18-Aug-95	52.2	105.73	130.73	0.225	0.225	0.045	5.2	0.4225	0.0765
19-Aug-95	48.5	109.57	134.57	0.225	0.225	0.045	5.2	0.4225	0.0765
20-Aug-95	51.3	113.45	138.45	0.225	0.225	0.045	5.2	0.4225	0.0765
21-Aug-95	50.3	123.33	148.33	0.225	0.225	0.045	5.2	0.4225	0.0765
22-Aug-95	50.3	125.33	150.33	0.225	0.225	0.045	5.2	0.4225	0.0765
23-Aug-95	47.5	123.33	148.33	0.225	0.225	0.045	5.2	0.4225	0.0765
24-Aug-95	39.8	119.35	144.35	0.225	0.225	0.045	5.2	0.4225	0.0765
25-Aug-95	44.0	119.35	144.35	0.225	0.225	0.045	5.2	0.4225	0.0765
26-Aug-95	44.0	111.50	136.50	0.225	0.225	0.05	5.2	0.4225	0.07
27-Aug-95	45.8	105.73	130.73	0.225	0.225	0.065	5.2	0.4225	0.139
28-Aug-95	44.0	105.73	130.73	0.225	0.225	0.065	5.2	0.4225	0.139

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
29-Aug-95	37.4	105.73	130.73	0.225	0.225	0.065	5.2	0.4225	0.139
30-Aug-95	35.1	101.93	126.93	0.225	0.225	0.065	5.2	0.4225	0.139
31-Aug-95	40.6	96.32	121.32	0.225	0.225	0.065	5.2	0.4225	0.139
1-Sep-95	40.6	85.37	110.37	0.25	0.225	0.065	5.65	0.4225	0.139
2-Sep-95	41.4	80.05	105.05	0.3	0.225	0.065	5.825	0.4225	0.139
3-Sep-95	41.4	76.55	101.55	0.3	0.225	0.065	5.825	0.4225	0.139
4-Sep-95	40.6	71.42	96.42	0.3	0.225	0.065	5.825	0.4225	0.139
5-Sep-95	39.0	71.42	96.42	0.3	0.225	0.065	5.825	0.4225	0.139
6-Sep-95	31.4	64.73	89.73	0.3	0.225	0.065	5.825	0.4225	0.139
7-Sep-95	30.0	61.47	86.47	0.3	0.225	0.065	5.825	0.4225	0.139
8-Sep-95	29.3	55.10	80.10	0.35	0.225	0.065	6	0.4225	0.139
9-Sep-95	26.7	55.10	80.10	0.425	0.225	0.065	8.1	0.4225	0.139
10-Sep-95	28.0	53.55	78.55	0.425	0.225	0.065	8.1	0.4225	0.139
11-Sep-95	24.2	55.10	80.10	0.425	0.225	0.065	8.1	0.4225	0.139
12-Sep-95	23.6	64.73	89.73	0.425	0.225	0.065	8.1	0.4225	0.139
13-Sep-95	24.2	71.42	96.42	0.425	0.225	0.065	8.1	0.4225	0.139
14-Sep-95	14.3	71.42	96.42	0.425	0.225	0.065	8.1	0.4225	0.139
15-Sep-95	13.4	66.38	91.38	0.425	0.2	0.065	8.1	0.419	0.139
16-Sep-95	12.6	64.73	89.73	0.425	0.225	0.065	8.1	0.4735	0.139
17-Sep-95	12.6	59.85	84.85	0.425	0.225	0.065	8.1	0.4735	0.139
18-Sep-95	13.0	55.10	80.10	0.425	0.225	0.065	8.1	0.4735	0.139
19-Sep-95	12.6	52.00	77.00	0.425	0.225	0.065	8.1	0.4735	0.139
20-Sep-95	9.9	48.95	73.95	0.425	0.225	0.065	8.1	0.4735	0.139
21-Sep-95	6.7	45.97	70.97	0.425	0.225	0.065	8.1	0.4735	0.139
22-Sep-95	16.6	41.60	66.60	0.425	0.225	0.065	8.1	0.4735	0.139
23-Sep-95	17.1	40.18	65.18	0.425	0.225	0.065	8.1	0.4735	0.139
24-Sep-95	16.6	40.18	65.18	0.425	0.225	0.065	8.1	0.4735	0.139
25-Sep-95	16.1	38.77	63.77	0.425	0.225	0.065	8.1	0.4735	0.139
26-Sep-95	16.1	45.97	70.97	0.425	0.225	0.065	8.1	0.4735	0.139
27-Sep-95	17.6	52.00	77.00	0.425	0.225	0.065	8.1	0.4735	0.139
28-Sep-95	22.4	53.55	78.55	0.425	0.225	0.065	8.1	0.4735	0.139
29-Sep-95	22.4	55.10	80.10	0.425	0.225	0.065	8.1	0.4735	0.139
30-Sep-95	23.0	52.00	77.00	0.425	0.225	0.065	8.1	0.4735	0.139
1-Oct-95	22.4	52.77	77.77	0.425	0.225	0.065	8.1	0.4735	0.139
2-Oct-95	22.1	54.32	79.32	0.425	0.225	0.065	8.1	0.4735	0.139
3-Oct-95	21.0	55.10	80.10	0.425	0.225	0.065	8.1	0.4735	0.139
4-Oct-95	18.6	54.32	79.32	0.425	0.225	0.065	8.1	0.4735	0.139
5-Oct-95	14.3	51.23	76.23	0.425	0.225	0.065	8.1	0.4735	0.139
6-Oct-95	13.4	48.20	73.20	0.425	0.225	0.065	8.1	0.4735	0.139

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
7-Oct-95	13.0	45.23	70.23	0.5	0.25	0.065	10.2	0.528	0.139
8-Oct-95	12.8	45.23	70.23	0.4	0.25	0.065	7.95	0.671	0.139
9-Oct-95	12.8	44.50	69.50	0.4	0.25	0.065	7.95	0.671	0.139
10-Oct-95	12.2	42.32	67.32	0.4	0.25	0.065	7.95	0.671	0.139
11-Oct-95	11.0	43.03	68.03	0.4	0.25	0.065	7.95	0.671	0.139
12-Oct-95	12.8	41.60	66.60	0.4	0.25	0.065	7.95	0.671	0.139
13-Oct-95	20.2	39.47	64.47	0.4	0.25	0.065	7.95	0.671	0.139
14-Oct-95	16.6	38.77	63.77	0.4	0.25	0.065	7.95	0.671	0.139
15-Oct-95	16.6	38.77	63.77	0.4	0.25	0.065	7.95	0.671	0.139
16-Oct-95	16.8	40.18	65.18	0.4	0.25	0.065	7.95	0.671	0.139
17-Oct-95	16.8	40.18	65.18	0.4	0.25	0.065	7.95	0.671	0.139
18-Oct-95	21.3	39.47	64.47	0.4	0.25	0.065	7.95	0.671	0.139
19-Oct-95	22.1	43.03	68.03	0.4	0.25	0.065	7.95	0.671	0.139
20-Oct-95	19.6	45.23	70.23	0.4	0.25	0.065	7.95	0.671	0.139
21-Oct-95	18.1	48.20	73.20	0.4	0.25	0.065	7.95	0.671	0.139
22-Oct-95	19.4	48.95	73.95	0.4	0.25	0.065	7.95	0.671	0.139
23-Oct-95	13.4	48.95	73.95	0.4	0.25	0.065	7.95	0.671	0.139
24-Oct-95	16.6	47.45	72.45	0.4	0.25	0.065	7.95	0.671	0.139
25-Oct-95	16.8	44.50	69.50	0.4	0.25	0.065	7.95	0.671	0.139
26-Oct-95	18.1	41.60	66.60	0.4	0.25	0.065	7.95	0.671	0.139
27-Oct-95	18.1	39.47	64.47	0.4	0.25	0.065	7.95	0.671	0.139
28-Oct-95	17.1	39.47	64.47	0.4	0.25	0.065	7.95	0.671	0.139
29-Oct-95	16.6	39.47	64.47	0.4	0.25	0.065	7.95	0.671	0.139
30-Oct-95	17.8	39.47	64.47	0.4	0.25	0.065	7.95	0.671	0.139
31-Oct-95	17.6	37.37	62.37	0.4	0.25	0.065	7.95	0.671	0.139
1-Nov-95	17.1	34.63	59.63	0.4	0.25	0.065	7.95	0.671	0.139
2-Nov-95	11.8	36.00	61.00	0.4	0.25	0.065	7.95	0.671	0.139
3-Nov-95	10.6	33.30	58.30	0.4	0.25	0.065	7.95	0.671	0.139
4-Nov-95	12.2	33.30	58.30	0.3	0.25	0.065	5.7	0.671	0.139
5-Nov-95	11.0	33.30	58.30	0.3	0.25	0.065	5.45	0.671	0.139
6-Nov-95	9.5	31.97	56.97	0.3	0.25	0.065	5.45	0.814	0.139
7-Nov-95	8.2	30.65	55.65	0.3	0.325	0.065	5.45	0.997	0.139
8-Nov-95	10.2	28.10	53.10	0.3	0.325	0.065	5.45	0.997	0.139
9-Nov-95	18.1	25.60	50.60	0.3	0.325	0.065	5.45	0.997	0.139
10-Nov-95	19.1	25.60	50.60	0.3	0.325	0.065	5.45	0.997	0.139
11-Nov-95	19.1	26.83	51.83	0.3	0.325	0.065	5.45	0.997	0.139
12-Nov-95	19.1	28.27	53.27	0.3	0.325	0.065	5.45	0.997	0.139
13-Nov-95	20.2	31.97	56.97	0.3	0.325	0.065	5.45	0.997	0.139
14-Nov-95	20.7	31.97	56.97	0.3	0.325	0.065	5.45	0.997	0.139

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
15-Nov-95	19.6	34.63	59.63	0.3	0.325	0.065	5.45	0.997	0.139
16-Nov-95	14.3	34.63	59.63	0.3	0.325	0.065	5.45	0.997	0.139
17-Nov-95	12.2	36.00	61.00	0.3	0.325	0.065	5.45	0.997	0.139
18-Nov-95	12.2	34.63	59.63	0.3	0.325	0.065	5.45	0.997	0.139
19-Nov-95	11.0	38.77	63.77	0.3	0.325	0.065	5.45	0.997	0.139
20-Nov-95	10.6	38.77	63.77	0.3	0.325	0.065	5.45	0.997	0.139
21-Nov-95	9.9	34.63	59.63	0.3	0.325	0.065	5.45	0.997	0.139
22-Nov-95	8.2	34.63	59.63	0.3	0.325	0.065	5.45	0.997	0.139
23-Nov-95	14.3	31.97	56.97	0.3	0.325	0.065	5.45	0.997	0.139
24-Nov-95	15.2	31.97	56.97	0.3	0.325	0.065	5.45	0.997	0.139
25-Nov-95	15.2	31.97	56.97	0.3	0.325	0.065	5.45	0.997	0.139
26-Nov-95	14.7	31.97	56.97	0.3	0.325	0.065	5.45	0.997	0.139
27-Nov-95	15.6	31.97	56.97	0.3	0.325	0.065	5.45	0.997	0.139
28-Nov-95	15.6	30.65	55.65	0.3	0.325	0.065	5.45	0.997	0.139
29-Nov-95	15.6	30.65	55.65	0.3	0.325	0.065	5.45	0.997	0.139
30-Nov-95	10.2	30.65	55.65	0.3	0.325	0.065	5.45	0.997	0.139
1-Dec-95	8.5	28.09	53.09	0.3	0.325	0.065	5.45	0.997	0.139
2-Dec-95	8.2	28.09	53.09	0.3	0.325	0.065	5.45	0.997	0.139
3-Dec-95	7.9	26.84	51.84	0.3	0.325	0.065	5.45	0.997	0.139
4-Dec-95	9.5	28.09	53.09	0.3	0.325	0.065	5.2	0.997	0.139
5-Dec-95	10.2	31.97	56.97	0.4	0.325	0.065	6.2	0.997	0.139
6-Dec-95	24.2	30.66	55.66	0.4	0.325	0.065	6.2	0.997	0.139
7-Dec-95	29.3	26.84	51.84	0.4	0.4	0.065	6.2	1.18	0.139
8-Dec-95	17.1	25.60	50.60	0.4	0.4	0.065	6.2	1.32	0.139
9-Dec-95	15.6	25.60	50.60	0.4	0.4	0.065	6.2	1.32	0.139
10-Dec-95	15.6	26.84	51.84	0.4	0.4	0.08	6.2	1.32	0.21
11-Dec-95	15.6	25.60	50.60	0.4	0.4	0.125	6.2	1.32	0.39
12-Dec-95	15.6	25.60	50.60	0.4	0.4	0.125	6.2	1.32	0.39
13-Dec-95	15.6	28.09	53.09	0.4	0.4	0.125	6.2	1.32	0.39
14-Dec-95	15.6	29.37	54.37	0.4	0.4	0.125	6.2	1.32	0.39
15-Dec-95	15.6	29.37	54.37	0.4	0.4	0.125	6.2	1.32	0.39
16-Dec-95	15.6	28.09	53.09	0.4	0.4	0.125	6.2	1.32	0.39
17-Dec-95	15.6	26.84	51.84	0.4	0.4	0.125	6.2	1.32	0.39
18-Dec-95	12.6	26.84	51.84	0.4	0.4	0.125	6.2	1.32	0.39
19-Dec-95	11.0	28.09	53.09	0.4	0.4	0.125	6.2	1.32	0.39
20-Dec-95	10.6	26.84	51.84	0.4	0.4	0.125	6.2	1.32	0.39
21-Dec-95	11.0	26.84	51.84	0.4	0.4	0.125	6.2	1.32	0.39
22-Dec-95	11.8	26.84	51.84	0.4	0.4	0.125	6.2	1.32	0.39
23-Dec-95	12.2	26.84	51.84	0.4	0.4	0.125	6.2	1.32	0.39

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
24-Dec-95	12.2	26.84	51.84	0.4	0.4	0.125	6.2	1.32	0.39
25-Dec-95	12.2	26.84	51.84	0.4	0.4	0.125	6.2	1.32	0.39
26-Dec-95	12.2	24.38	49.38	0.4	0.4	0.125	6.2	1.32	0.39
27-Dec-95	11.4	22.01	47.01	0.4	0.4	0.125	6.2	1.32	0.39
28-Dec-95	11.8	22.01	47.01	0.4	0.4	0.125	6.2	1.32	0.39
29-Dec-95	11.8	22.01	47.01	0.4	0.4	0.125	6.2	1.32	0.39
30-Dec-95	11.8	22.01	47.01	0.4	0.4	0.125	6.2	1.32	0.39
31-Dec-95	11.8	20.85	45.85	0.4	0.4	0.125	6.2	1.32	0.39
1-Jan-96	10.8	22.08	47.08	0.4	0.4	0.125	6.2	1.32	0.39
2-Jan-96	10.6	21.90	46.90	0.4	0.4	0.125	6.2	1.32	0.39
3-Jan-96	10.6	21.90	46.90	0.4	0.4	0.125	6.2	1.32	0.39
4-Jan-96	9.4	20.65	45.65	0.4	0.4	0.125	6.2	1.32	0.39
5-Jan-96	9.5	20.82	45.82	0.4	0.4	0.125	6.2	1.32	0.39
6-Jan-96	9.7	20.99	45.99	0.4	0.4	0.125	6.2	1.32	0.39
7-Jan-96	9.5	20.82	45.82	0.4	0.4	0.125	6.2	1.32	0.39
8-Jan-96	10.4	21.71	46.71	0.4	0.4	0.125	6.2	1.32	0.39
9-Jan-96	9.9	21.17	46.17	0.4	0.4	0.125	6.2	1.32	0.39
10-Jan-96	8.2	19.49	44.49	0.4	0.4	0.125	6.2	1.32	0.39
11-Jan-96	7.9	19.17	44.17	0.4	0.4	0.125	6.2	1.32	0.39
12-Jan-96	7.1	18.42	43.42	0.4	0.4	0.125	6.2	1.32	0.39
13-Jan-96	6.2	17.44	42.44	0.4	0.4	0.125	6.2	1.32	0.39
14-Jan-96	5.8	17.05	42.05	0.4	0.4	0.125	6.2	1.32	0.39
15-Jan-96	5.8	17.05	42.05	0.4	0.4	0.125	6.2	1.32	0.39
16-Jan-96	5.8	17.05	42.05	0.4	0.4	0.125	6.2	1.32	0.39
17-Jan-96	5.8	17.05	42.05	0.4	0.4	0.125	6.2	1.32	0.39
18-Jan-96	5.8	17.05	42.05	0.4	0.4	0.125	6.2	1.32	0.39
19-Jan-96	5.9	17.18	42.18	0.5	0.4	0.125	7.2	1.32	0.39
20-Jan-96	5.9	17.18	42.18	0.475	0.4	0.125	6.85	1.32	0.39
21-Jan-96	5.4	16.67	41.67	0.475	0.4	0.125	6.85	1.46	0.39
22-Jan-96	4.6	15.85	40.85	0.475	0.45	0.17	6.85	1.555	0.57
23-Jan-96	4.2	15.52	40.52	0.475	0.45	0.185	6.85	1.555	0.567
24-Jan-96	4.3	15.63	40.63	0.475	0.45	0.185	6.85	1.555	0.567
25-Jan-96	4.7	15.96	40.96	0.475	0.45	0.185	6.85	1.555	0.567
26-Jan-96	4.9	16.19	41.19	0.475	0.45	0.185	6.85	1.555	0.567
27-Jan-96	4.9	16.19	41.19	0.475	0.45	0.185	6.85	1.555	0.567
28-Jan-96	5.1	16.43	41.43	0.475	0.45	0.185	6.85	1.555	0.567
29-Jan-96	5.4	16.67	41.67	0.475	0.45	0.185	6.85	1.555	0.567
30-Jan-96	5.4	16.67	41.67	0.475	0.45	0.185	6.85	1.555	0.567
31-Jan-96	5.3	11.66	36.66	0.475	0.45	0.185	6.85	1.555	0.567

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
1-Feb-96	5.8	12.16	37.16	0.475	0.45	0.185	6.85	1.555	0.567
2-Feb-96	5.9	12.29	37.29	0.475	0.45	0.185	6.85	1.555	0.567
3-Feb-96	5.9	12.29	37.29	0.475	0.45	0.185	6.85	1.555	0.567
4-Feb-96	5.1	11.54	36.54	0.475	0.45	0.185	6.85	1.555	0.567
5-Feb-96	4.9	11.30	36.30	0.475	0.45	0.185	6.85	1.555	0.567
6-Feb-96	4.9	11.30	36.30	0.475	0.45	0.185	6.85	1.555	0.567
7-Feb-96	4.9	11.30	36.30	0.475	0.45	0.185	6.85	1.555	0.567
8-Feb-96	4.9	11.30	36.30	0.475	0.45	0.185	6.85	1.555	0.567
9-Feb-96	4.7	11.07	36.07	0.475	0.45	0.185	6.85	1.555	0.567
10-Feb-96	4.4	10.19	35.19	0.475	0.45	0.185	6.85	1.555	0.567
11-Feb-96	4.3	10.08	35.08	0.475	0.45	0.185	6.85	1.555	0.567
12-Feb-96	4.4	10.19	35.19	0.475	0.45	0.185	6.85	1.555	0.567
13-Feb-96	4.4	10.19	35.19	0.475	0.45	0.185	6.85	1.555	0.567
14-Feb-96	4.6	10.30	35.30	0.475	0.45	0.185	6.85	1.555	0.567
15-Feb-96	4.4	10.19	35.19	0.475	0.45	0.185	6.85	1.555	0.567
16-Feb-96	4.2	9.97	34.97	0.475	0.45	0.185	6.85	1.555	0.567
17-Feb-96	4.1	9.87	34.87	0.45	0.45	0.185	6.5	1.555	0.567
18-Feb-96	4.0	9.76	34.76	0.45	0.45	0.185	6.5	1.555	0.567
19-Feb-96	4.0	9.76	34.76	0.45	0.5	0.2	6.5	1.65	0.56
20-Feb-96	3.9	9.06	34.06	0.45	0.525	0.25	6.5	1.83	0.599
21-Feb-96	4.7	9.82	34.82	0.45	0.525	0.25	6.5	1.83	0.599
22-Feb-96	5.3	10.40	35.40	0.45	0.525	0.25	6.5	1.83	0.599
23-Feb-96	5.1	10.28	35.28	0.45	0.525	0.25	6.5	1.83	0.599
24-Feb-96	4.4	9.59	34.59	0.45	0.525	0.25	6.5	1.83	0.599
25-Feb-96	4.2	9.38	34.38	0.45	0.525	0.25	6.5	1.83	0.599
26-Feb-96	4.2	9.38	34.38	0.45	0.525	0.25	6.5	1.83	0.599
27-Feb-96	4.0	9.16	34.16	0.45	0.525	0.25	6.5	1.83	0.599
28-Feb-96	3.8	8.96	33.96	0.45	0.525	0.25	6.5	1.83	0.599
29-Feb-96	5.3	10.40	35.40	0.45	0.525	0.25	6.5	1.83	0.599
1-Mar-96	7.3	4.73	29.73	0.45	0.525	0.25	6.5	1.83	0.599
2-Mar-96	7.9	4.73	29.73	0.45	0.525	0.25	6.5	1.83	0.599
3-Mar-96	7.0	4.73	29.73	0.45	0.525	0.25	6.5	1.83	0.599
4-Mar-96	6.6	4.73	29.73	0.45	0.525	0.25	6.5	1.83	0.599
5-Mar-96	7.0	5.09	30.09	0.45	0.525	0.25	6.5	1.83	0.599
6-Mar-96	5.6	5.09	30.09	0.45	0.525	0.25	6.5	1.83	0.599
7-Mar-96	4.2	5.09	30.09	0.45	0.525	0.25	6.5	1.83	0.599
8-Mar-96	4.2	5.46	30.46	0.45	0.525	0.25	6.5	1.83	0.599
9-Mar-96	4.0	5.46	30.46	0.45	0.525	0.25	6.5	1.83	0.599
10-Mar-96	4.0	5.46	30.46	0.45	0.525	0.25	6.5	1.83	0.599

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
11-Mar-96	4.2	6.61	31.61	0.325	0.525	0.25	20.25	1.83	0.599
12-Mar-96	4.2	6.61	31.61	0.325	0.525	0.25	20.25	1.83	0.599
13-Mar-96	3.9	6.61	31.61	0.325	0.525	0.25	20.25	1.83	0.599
14-Mar-96	5.1	7.83	32.83	0.325	0.525	0.25	20.25	1.83	0.599
15-Mar-96	8.0	7.83	32.83	0.325	0.525	0.25	20.25	1.83	0.599
16-Mar-96	14.3	8.68	33.68	0.325	0.525	0.25	20.25	1.83	0.599
17-Mar-96	11.0	9.56	34.56	0.325	0.55	0.3	20.25	2.01	0.64
18-Mar-96	10.6	10.46	35.46	0.325	0.625	0.17	20.25	2.31	0.404
19-Mar-96	7.1	10.46	35.46	0.325	0.625	0.17	20.25	2.31	0.404
20-Mar-96	4.4	10.92	35.92	0.325	0.625	0.17	20.25	2.31	0.404
21-Mar-96	4.1	10.92	35.92	0.325	0.625	0.17	20.25	2.31	0.404
22-Mar-96	4.0	9.56	34.56	0.325	0.625	0.17	20.25	2.31	0.404
23-Mar-96	3.8	9.56	34.56	0.325	0.625	0.17	20.25	2.31	0.404
24-Mar-96	3.7	9.11	34.11	0.325	0.625	0.17	20.25	2.31	0.404
25-Mar-96	3.7	8.68	33.68	0.325	0.625	0.17	20.25	2.31	0.404
26-Mar-96	3.8	8.25	33.25	0.325	0.625	0.17	20.25	2.31	0.404
27-Mar-96	3.8	7.83	32.83	0.325	0.625	0.17	20.25	2.31	0.404
28-Mar-96	10.2	8.25	33.25	0.325	0.625	0.17	20.25	2.31	0.404
29-Mar-96	14.3	9.56	34.56	0.325	0.625	0.17	20.25	2.31	0.404
30-Mar-96	11.0	10.01	35.01	0.325	0.625	0.17	20.25	2.31	0.404
31-Mar-96	9.5	10.92	35.92	0.325	0.625	0.17	20.25	2.31	0.404
1-Apr-96	10.6	11.39	36.39	0.325	0.625	0.17	20.25	2.31	0.404
2-Apr-96	9.5	11.39	36.39	0.325	0.625	0.17	20.25	2.31	0.404
3-Apr-96	5.4	12.35	37.35	0.325	0.625	0.17	20.25	2.31	0.404
4-Apr-96	4.2	12.35	37.35	0.325	0.625	0.17	20.25	2.31	0.404
5-Apr-96	4.2	11.39	36.39	0.325	0.625	0.17	20.25	2.31	0.404
6-Apr-96	4.4	11.39	36.39	0.325	0.625	0.17	20.25	2.31	0.404
7-Apr-96	5.9	12.35	37.35	0.325	0.625	0.17	20.25	2.31	0.404
8-Apr-96	7.6	11.39	36.39	0.325	0.625	0.17	20.25	2.31	0.404
9-Apr-96	7.9	10.46	35.46	0.325	0.625	0.17	20.25	2.31	0.404
10-Apr-96	7.0	11.39	36.39	0.325	0.625	0.17	20.25	2.31	0.404
11-Apr-96	14.3	10.46	35.46	0.325	0.7	0.04	20.25	2.61	0.17
12-Apr-96	17.1	11.39	36.39	0.325	0.435	0.055	20.25	1.57	0.256
13-Apr-96	18.1	13.33	38.33	0.325	0.435	0.055	20.25	1.57	0.256
14-Apr-96	18.1	15.37	40.37	0.325	0.435	0.055	20.25	1.57	0.256
15-Apr-96	19.1	16.42	41.42	0.325	0.435	0.055	20.25	1.57	0.256
16-Apr-96	16.6	17.49	42.49	0.325	0.435	0.055	20.25	1.57	0.256
17-Apr-96	8.2	17.49	42.49	0.325	0.435	0.055	20.25	1.57	0.256
18-Apr-96	4.4	16.42	41.42	0.325	0.435	0.055	20.25	1.57	0.256

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
19-Apr-96	4.7	14.34	39.34	0.325	0.435	0.055	20.25	1.57	0.256
20-Apr-96	5.4	13.33	38.33	0.325	0.435	0.055	20.25	1.57	0.256
21-Apr-96	5.4	12.35	37.35	0.325	0.435	0.055	20.25	1.57	0.256
22-Apr-96	4.2	11.39	36.39	0.325	0.435	0.055	20.25	1.57	0.256
23-Apr-96	5.1	10.46	35.46	0.325	0.435	0.055	20.25	1.57	0.256
24-Apr-96	6.7	10.46	35.46	0.325	0.435	0.055	20.25	1.57	0.256
25-Apr-96	15.6	9.56	34.56	0.325	0.435	0.055	20.25	1.57	0.256
26-Apr-96	19.6	10.46	35.46	0.325	0.435	0.055	20.25	1.57	0.256
27-Apr-96	21.8	12.35	37.35	0.325	0.435	0.055	20.25	1.57	0.256
28-Apr-96	23.6	16.42	41.42	0.325	0.435	0.055	20.25	1.57	0.256
29-Apr-96	29.3	24.38	49.38	0.2	0.435	0.055	34	1.57	0.256
30-Apr-96	29.3	31.97	56.97	0.275	0.435	0.055	20.15	1.57	0.256
1-May-96	20.7	45.97	70.97	0.275	0.435	0.055	20.15	1.57	0.256
2-May-96	17.6	63.09	88.09	0.275	0.435	0.055	20.15	1.57	0.256
3-May-96	13.0	68.05	93.05	0.275	0.435	0.055	20.15	1.57	0.256
4-May-96	14.3	69.73	94.73	0.275	0.435	0.055	20.15	1.57	0.256
5-May-96	13.8	69.73	94.73	0.275	0.435	0.055	20.15	1.57	0.256
6-May-96	12.6	68.05	93.05	0.275	0.435	0.055	20.15	1.57	0.256
7-May-96	12.2	61.47	86.47	0.275	0.435	0.055	20.15	1.57	0.256
8-May-96	13.0	55.10	80.10	0.275	0.435	0.055	20.15	1.57	0.256
9-May-96	20.2	52.00	77.00	0.275	0.435	0.055	20.15	1.57	0.256
10-May-96	19.1	47.45	72.45	0.275	0.435	0.055	20.15	1.57	0.256
11-May-96	18.6	44.50	69.50	0.275	0.17	0.055	20.15	0.53	0.256
12-May-96	18.6	43.04	68.04	0.275	0.235	0.055	20.15	0.775	0.256
13-May-96	19.1	43.04	68.04	0.275	0.235	0.055	20.15	0.775	0.256
14-May-96	19.1	43.04	68.04	0.275	0.235	0.055	20.15	0.775	0.256
15-May-96	9.5	41.60	66.60	0.275	0.235	0.055	20.15	0.775	0.256
16-May-96	8.8	38.77	63.77	0.275	0.235	0.055	20.15	0.775	0.256
17-May-96	10.2	38.77	63.77	0.275	0.235	0.055	20.15	0.775	0.256
18-May-96	13.4	38.77	63.77	0.275	0.235	0.055	20.15	0.775	0.256
19-May-96	14.3	38.77	63.77	0.35	0.235	0.055	6.3	0.775	0.256
20-May-96	15.6	40.18	65.18	0.245	0.235	0.055	4.125	0.775	0.256
21-May-96	11.8	40.18	65.18	0.245	0.235	0.055	4.125	0.775	0.256
22-May-96	12.6	38.77	63.77	0.245	0.235	0.055	4.125	0.775	0.256
23-May-96	17.6	37.37	62.37	0.245	0.235	0.055	4.125	0.775	0.256
24-May-96	19.1	37.37	62.37	0.245	0.235	0.07	4.125	0.775	0.34
25-May-96	19.6	37.37	62.37	0.245	0.235	0.055	4.125	0.775	0.2285
26-May-96	19.1	38.77	63.77	0.245	0.235	0.055	4.125	0.775	0.2285
27-May-96	19.1	38.77	63.77	0.245	0.235	0.055	4.125	0.775	0.2285

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
28-May-96	18.6	37.37	62.37	0.245	0.235	0.055	4.125	0.775	0.2285
29-May-96	13.0	37.37	62.37	0.245	0.235	0.055	4.125	0.775	0.2285
30-May-96	10.6	36.00	61.00	0.245	0.235	0.055	4.125	0.775	0.2285
31-May-96	10.6	34.64	59.64	0.245	0.235	0.055	4.125	0.775	0.2285
1-Jun-96	10.6	26.84	51.84	0.245	0.235	0.055	4.125	0.775	0.2285
2-Jun-96	11.0	26.84	51.84	0.245	0.235	0.055	4.125	0.775	0.2285
3-Jun-96	11.0	24.38	49.38	0.245	0.235	0.055	4.125	0.775	0.2285
4-Jun-96	11.0	24.38	49.38	0.245	0.235	0.055	4.125	0.775	0.2285
5-Jun-96	12.6	22.01	47.01	0.245	0.235	0.055	4.125	0.775	0.2285
6-Jun-96	20.2	23.18	48.18	0.245	0.235	0.055	4.125	0.775	0.2285
7-Jun-96	19.9	25.60	50.60	0.245	0.235	0.055	4.125	0.775	0.2285
8-Jun-96	19.4	27.46	52.46	0.245	0.3	0.055	4.125	1.02	0.2285
9-Jun-96	19.4	27.46	52.46	0.245	0.245	0.055	4.125	0.847	0.2285
10-Jun-96	19.9	25.60	50.60	0.245	0.245	0.055	4.125	0.847	0.2285
11-Jun-96	20.7	24.99	49.99	0.245	0.245	0.055	4.125	0.847	0.2285
12-Jun-96	15.2	31.97	56.97	0.245	0.245	0.055	4.125	0.847	0.2285
13-Jun-96	11.4	28.09	53.09	0.245	0.245	0.055	4.125	0.847	0.2285
14-Jun-96	11.4	23.78	48.78	0.245	0.245	0.055	4.125	0.847	0.2285
15-Jun-96	11.4	24.38	49.38	0.245	0.245	0.055	4.125	0.847	0.2285
16-Jun-96	11.6	26.84	51.84	0.245	0.245	0.055	4.125	0.847	0.2285
17-Jun-96	12.6	31.97	56.97	0.245	0.245	0.055	4.125	0.847	0.2285
18-Jun-96	15.2	37.37	62.37	0.245	0.245	0.055	4.125	0.847	0.2285
19-Jun-96	20.7	37.37	62.37	0.245	0.245	0.055	4.125	0.847	0.2285
20-Jun-96	31.4	55.10	80.10	0.245	0.245	0.055	4.125	0.847	0.2285
21-Jun-96	29.0	88.97	113.97	0.245	0.245	0.055	4.125	0.847	0.2285
22-Jun-96	26.0	103.83	128.83	0.245	0.245	0.055	4.125	0.847	0.2285
23-Jun-96	25.1	94.46	119.46	0.14	0.245	0.04	1.95	0.847	0.12
24-Jun-96	24.2	85.37	110.37	0.135	0.245	0.045	1.995	0.847	0.108
25-Jun-96	23.3	77.42	102.42	0.135	0.245	0.045	1.995	0.847	0.108
26-Jun-96	18.1	70.57	95.57	0.135	0.245	0.045	1.995	0.847	0.108
27-Jun-96	15.2	63.91	88.91	0.135	0.245	0.045	1.995	0.847	0.108
28-Jun-96	15.2	61.47	86.47	0.135	0.245	0.045	1.995	0.847	0.108
29-Jun-96	15.4	57.46	82.46	0.135	0.245	0.045	1.995	0.847	0.108
30-Jun-96	13.0	53.54	78.54	0.135	0.245	0.045	1.995	0.847	0.108
1-Jul-96	15.6	48.95	73.95	0.135	0.245	0.045	1.995	0.847	0.108
2-Jul-96	16.1	45.23	70.23	0.135	0.245	0.045	1.995	0.847	0.108
3-Jul-96	21.3	43.77	68.77	0.135	0.245	0.045	1.995	0.847	0.108
4-Jul-96	26.0	55.10	80.10	0.135	0.245	0.045	1.995	0.847	0.108
5-Jul-96	26.4	47.45	72.45	0.135	0.245	0.045	1.995	0.847	0.108

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
6-Jul-96	35.8	63.09	88.09	0.135	0.245	0.045	1.995	0.847	0.108
7-Jul-96	31.4	96.31	121.31	0.135	0.245	0.045	1.995	0.847	0.108
8-Jul-96	26.7	100.05	125.05	0.135	0.245	0.045	1.995	0.847	0.108
9-Jul-96	27.7	111.51	136.51	0.135	0.245	0.045	1.995	0.847	0.108
10-Jul-96	21.3	103.83	128.83	0.135	0.245	0.045	1.995	0.847	0.108
11-Jul-96	20.7	69.73	94.73	0.135	0.245	0.045	1.995	0.847	0.108
12-Jul-96	19.6	63.09	88.09	0.135	0.245	0.045	1.995	0.847	0.108
13-Jul-96	17.6	56.67	81.67	0.135	0.245	0.045	1.995	0.847	0.108
14-Jul-96	15.6	52.00	77.00	0.135	0.245	0.045	1.995	0.847	0.108
15-Jul-96	18.6	50.47	75.47	0.135	0.245	0.045	1.995	0.847	0.108
16-Jul-96	19.1	47.45	72.45	0.135	0.245	0.045	1.995	0.847	0.108
17-Jul-96	22.4	43.04	68.04	0.135	0.19	0.045	1.995	0.674	0.108
18-Jul-96	26.4	39.47	64.47	0.135	0.185	0.045	1.995	0.6005	0.108
19-Jul-96	26.7	37.37	62.37	0.13	0.185	0.045	2.04	0.6005	0.108
20-Jul-96	27.3	38.07	63.07	0.14	0.185	0.05	4.22	0.6005	0.10
21-Jul-96	26.0	40.18	65.18	0.14	0.185	0.045	4.22	0.6005	0.115
22-Jul-96	26.7	41.60	66.60	0.14	0.185	0.045	4.22	0.6005	0.115
23-Jul-96	25.1	40.18	65.18	0.14	0.185	0.045	4.22	0.6005	0.115
24-Jul-96	20.2	38.77	63.77	0.14	0.185	0.045	4.22	0.6005	0.115
25-Jul-96	18.8	34.64	59.64	0.14	0.185	0.045	4.22	0.6005	0.115
26-Jul-96	17.8	33.29	58.29	0.14	0.185	0.045	4.22	0.6005	0.115
27-Jul-96	18.6	30.66	55.66	0.14	0.185	0.045	4.22	0.6005	0.115
28-Jul-96	14.7	30.01	55.01	0.14	0.185	0.045	4.22	0.6005	0.115
29-Jul-96	15.2	30.01	55.01	0.14	0.185	0.045	4.22	0.6005	0.115
30-Jul-96	16.1	30.66	55.66	0.14	0.185	0.045	4.22	0.6005	0.115
31-Jul-96	22.4	26.84	51.84	0.14	0.185	0.045	4.22	0.6005	0.115
1-Aug-96	27.3	28.09	53.09	0.14	0.185	0.045	4.22	0.6005	0.115
2-Aug-96	27.7	28.09	53.09	0.14	0.18	0.045	4.22	0.527	0.115
3-Aug-96	28.3	26.84	51.84	0.14	0.215	0.045	4.22	0.4735	0.115
4-Aug-96	28.3	26.84	51.84	0.14	0.215	0.045	4.22	0.4735	0.115
5-Aug-96	28.0	26.22	51.22	0.14	0.215	0.045	4.22	0.4735	0.115
6-Aug-96	26.7	26.84	51.84	0.14	0.215	0.045	4.22	0.4735	0.115
7-Aug-96	17.1	26.22	51.22	0.14	0.215	0.045	4.22	0.4735	0.115
8-Aug-96	13.8	24.99	49.99	0.15	0.215	0.045	6.4	0.4735	0.115
9-Aug-96	14.3	24.99	49.99	0.2	0.215	0.045	6.2	0.4735	0.115
10-Aug-96	18.1	31.97	56.97	0.2	0.215	0.045	6.2	0.4735	0.115
11-Aug-96	15.2	33.29	58.29	0.2	0.215	0.045	6.2	0.4735	0.115
12-Aug-96	14.5	28.73	53.73	0.2	0.215	0.045	6.2	0.4735	0.115
13-Aug-96	15.2	26.84	51.84	0.2	0.215	0.045	6.2	0.4735	0.115

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
14-Aug-96	18.1	25.60	50.60	0.2	0.215	0.045	6.2	0.4735	0.115
15-Aug-96	23.0	22.59	47.59	0.2	0.215	0.045	6.2	0.4735	0.115
16-Aug-96	23.3	22.59	47.59	0.2	0.215	0.045	6.2	0.4735	0.115
17-Aug-96	26.0	26.84	51.84	0.2	0.215	0.045	6.2	0.4735	0.115
18-Aug-96	38.6	43.04	68.04	0.2	0.215	0.04	6.2	0.4735	0.13
19-Aug-96	36.2	43.77	68.77	0.2	0.215	0.04	6.2	0.4735	0.124
20-Aug-96	31.4	43.04	68.04	0.2	0.215	0.04	6.2	0.4735	0.124
21-Aug-96	18.1	45.97	70.97	0.2	0.215	0.04	6.2	0.4735	0.124
22-Aug-96	13.2	39.47	64.47	0.2	0.215	0.04	6.2	0.4735	0.124
23-Aug-96	11.4	36.00	61.00	0.2	0.215	0.04	6.2	0.4735	0.124
24-Aug-96	22.4	48.95	73.95	0.2	0.215	0.04	6.2	0.4735	0.124
25-Aug-96	12.4	52.77	77.77	0.2	0.215	0.04	6.2	0.4735	0.124
26-Aug-96	12.2	47.45	72.45	0.2	0.215	0.04	6.2	0.4735	0.124
27-Aug-96	13.4	41.60	66.60	0.2	0.215	0.04	6.2	0.4735	0.124
28-Aug-96	18.1	36.00	61.00	0.2	0.215	0.04	6.2	0.4735	0.124
29-Aug-96	24.8	36.00	61.00	0.2	0.215	0.04	6.2	0.4735	0.124
30-Aug-96	27.0	31.97	56.97	0.2	0.215	0.04	6.2	0.4735	0.124
31-Aug-96	24.2	36.00	61.00	0.2	0.215	0.04	6.2	0.4735	0.124
1-Sep-96	24.2	37.37	62.37	0.2	0.215	0.04	6.2	0.4735	0.124
2-Sep-96	24.2	39.47	64.47	0.2	0.215	0.04	6.2	0.4735	0.124
3-Sep-96	16.3	40.18	65.18	0.2	0.215	0.04	6.2	0.4735	0.124
4-Sep-96	10.8	34.64	59.64	0.2	0.215	0.04	6.2	0.4735	0.124
5-Sep-96	10.2	29.37	54.37	0.25	0.215	0.04	6	0.4735	0.124
6-Sep-96	20.7	38.77	63.77	0.325	0.215	0.04	8.1	0.4735	0.124
7-Sep-96	18.1	59.06	84.06	0.325	0.215	0.04	8.1	0.4735	0.124
8-Sep-96	14.7	56.67	81.67	0.325	0.215	0.04	8.1	0.4735	0.124
9-Sep-96	13.6	55.10	80.10	0.325	0.215	0.04	8.1	0.4735	0.124
10-Sep-96	12.0	51.23	76.23	0.325	0.215	0.04	8.1	0.4735	0.124
11-Sep-96	12.4	48.95	73.95	0.325	0.215	0.04	8.1	0.4735	0.124
12-Sep-96	20.4	47.45	72.45	0.325	0.215	0.04	8.1	0.4735	0.124
13-Sep-96	18.1	45.97	70.97	0.325	0.215	0.04	8.1	0.4735	0.124
14-Sep-96	16.6	43.04	68.04	0.325	0.215	0.04	8.1	0.4735	0.124
15-Sep-96	15.6	40.18	65.18	0.325	0.215	0.04	8.1	0.4735	0.124
16-Sep-96	14.3	37.37	62.37	0.325	0.215	0.04	8.1	0.4735	0.124
17-Sep-96	13.2	35.31	60.31	0.325	0.215	0.04	8.1	0.4735	0.124
18-Sep-96	9.5	33.29	58.29	0.325	0.215	0.04	8.1	0.4735	0.124
19-Sep-96	9.4	31.31	56.31	0.325	0.25	0.04	8.1	0.42	0.124
20-Sep-96	7.9	29.37	54.37	0.325	0.225	0.04	8.1	0.603	0.124
21-Sep-96	7.7	27.46	52.46	0.325	0.225	0.04	8.1	0.603	0.124

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
22-Sep-96	7.9	26.22	51.22	0.325	0.225	0.04	8.1	0.603	0.124
23-Sep-96	7.6	27.46	52.46	0.325	0.225	0.04	8.1	0.603	0.124
24-Sep-96	9.2	27.46	52.46	0.325	0.225	0.04	8.1	0.603	0.124
25-Sep-96	11.4	25.60	50.60	0.325	0.225	0.04	8.1	0.603	0.124
26-Sep-96	22.7	24.99	49.99	0.325	0.225	0.04	8.1	0.603	0.124
27-Sep-96	23.9	28.09	53.09	0.325	0.225	0.04	8.1	0.603	0.124
28-Sep-96	23.0	28.73	53.73	0.325	0.225	0.04	8.1	0.603	0.124
29-Sep-96	19.1	30.01	55.01	0.325	0.225	0.04	8.1	0.603	0.12
30-Sep-96	18.6	30.66	55.66	0.325	0.225	0.035	8.1	0.603	0.1195
1-Oct-96	21.8	30.66	55.66	0.325	0.225	0.035	8.1	0.603	0.1195
2-Oct-96	25.4	29.37	54.37	0.325	0.225	0.035	8.1	0.603	0.1195
3-Oct-96	17.6	28.09	53.09	0.325	0.225	0.035	8.1	0.603	0.1195
4-Oct-96	15.2	28.09	53.09	0.325	0.225	0.035	8.1	0.603	0.1195
5-Oct-96	16.1	30.66	55.66	0.325	0.225	0.035	8.1	0.603	0.1195
6-Oct-96	15.2	30.66	55.66	0.325	0.225	0.035	8.1	0.603	0.1195
7-Oct-96	15.6	29.37	54.37	0.325	0.225	0.035	8.1	0.603	0.1195
8-Oct-96	16.1	29.37	54.37	0.325	0.225	0.035	8.1	0.603	0.1195
9-Oct-96	15.2	28.09	53.09	0.325	0.225	0.035	8.1	0.603	0.1195
10-Oct-96	18.6	29.37	54.37	0.325	0.225	0.035	8.1	0.603	0.1195
11-Oct-96	19.6	30.66	55.66	0.325	0.225	0.035	8.1	0.603	0.1195
12-Oct-96	19.6	33.29	58.29	0.325	0.225	0.035	8.1	0.603	0.1195
13-Oct-96	20.2	34.64	59.64	0.325	0.225	0.035	8.1	0.603	0.1195
14-Oct-96	19.6	34.64	59.64	0.325	0.225	0.035	8.1	0.603	0.1195
15-Oct-96	20.2	38.77	63.77	0.325	0.225	0.035	8.1	0.603	0.1195
16-Oct-96	20.2	40.18	65.18	0.325	0.225	0.035	8.1	0.603	0.1195
17-Oct-96	16.1	41.60	66.60	0.325	0.225	0.03	8.1	0.603	0.12
18-Oct-96	9.5	40.18	65.18	0.325	0.225	0.06	8.1	0.603	0.178
19-Oct-96	8.5	38.77	63.77	0.325	0.225	0.06	8.1	0.603	0.178
20-Oct-96	8.2	36.00	61.00	0.4	0.225	0.06	10.2	0.603	0.178
21-Oct-96	7.6	33.29	58.29	0.425	0.225	0.06	5.325	0.603	0.178
22-Oct-96	7.6	30.66	55.66	0.425	0.225	0.06	5.325	0.603	0.178
23-Oct-96	8.2	29.37	54.37	0.425	0.225	0.06	5.325	0.603	0.178
24-Oct-96	15.2	28.09	53.09	0.425	0.225	0.06	5.325	0.603	0.178
25-Oct-96	20.2	28.09	53.09	0.425	0.2	0.06	5.325	0.786	0.178
26-Oct-96	20.7	29.37	54.37	0.425	0.225	0.06	5.325	0.7565	0.178
27-Oct-96	21.3	30.66	55.66	0.425	0.225	0.06	5.325	0.7565	0.178
28-Oct-96	21.8	33.29	58.29	0.425	0.225	0.06	5.325	0.7565	0.178
29-Oct-96	21.3	34.64	59.64	0.425	0.225	0.06	5.325	0.7565	0.178
30-Oct-96	13.4	34.64	59.64	0.425	0.225	0.06	5.325	0.7565	0.178

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
31-Oct-96	7.6	33.29	58.29	0.425	0.225	0.06	5.325	0.7565	0.178
1-Nov-96	8.0	29.37	54.37	0.425	0.225	0.06	5.325	0.7565	0.178
2-Nov-96	8.2	29.37	54.37	0.425	0.225	0.06	5.325	0.7565	0.178
3-Nov-96	8.5	28.09	53.09	0.425	0.225	0.06	5.325	0.7565	0.178
4-Nov-96	8.2	24.99	49.99	0.425	0.225	0.06	5.325	0.7565	0.178
5-Nov-96	8.2	24.38	49.38	0.425	0.225	0.06	5.325	0.7565	0.178
6-Nov-96	8.8	24.38	49.38	0.45	0.225	0.06	0.45	0.7565	0.178
7-Nov-96	16.1	24.38	49.38	0.11	0.225	0.06	0.11	0.7565	0.178
8-Nov-96	21.3	25.60	50.60	0.155	0.225	0.06	2.18	0.7565	0.178
9-Nov-96	21.3	26.22	51.22	0.155	0.225	0.06	2.18	0.7565	0.178
10-Nov-96	21.3	27.46	52.46	0.2	0.225	0.06	4.25	0.7565	0.178
11-Nov-96	20.2	28.09	53.09	0.225	0.25	0.06	4.825	0.727	0.178
12-Nov-96	18.1	29.37	54.37	0.225	0.25	0.06	4.825	0.8885	0.178
13-Nov-96	11.4	29.37	54.37	0.225	0.25	0.06	4.825	0.8885	0.178
14-Nov-96	7.9	28.09	53.09	0.225	0.25	0.06	4.825	0.8885	0.178
15-Nov-96	7.3	27.46	52.46	0.225	0.25	0.06	4.825	0.8885	0.178
16-Nov-96	6.7	25.60	50.60	0.225	0.25	0.06	4.825	0.8885	0.178
17-Nov-96	6.2	23.18	48.18	0.225	0.25	0.06	4.825	0.8885	0.178
18-Nov-96	5.6	22.01	47.01	0.225	0.25	0.06	4.825	0.8885	0.178
19-Nov-96	4.2	18.59	43.59	0.225	0.25	0.06	4.825	0.8885	0.178
20-Nov-96	4.1	16.42	41.42	0.225	0.25	0.06	4.825	0.8885	0.178
21-Nov-96	5.8	15.89	40.89	0.225	0.25	0.06	4.825	0.8885	0.178
22-Nov-96	9.5	15.89	40.89	0.225	0.25	0.06	4.825	0.8885	0.178
23-Nov-96	19.1	16.42	41.42	0.225	0.25	0.06	4.825	0.8885	0.178
24-Nov-96	18.6	18.59	43.59	0.225	0.25	0.06	4.825	0.8885	0.178
25-Nov-96	18.1	19.71	44.71	0.225	0.25	0.06	4.825	0.8885	0.178
26-Nov-96	17.6	19.71	44.71	0.225	0.25	0.06	4.825	0.8885	0.178
27-Nov-96	8.5	19.71	44.71	0.225	0.25	0.06	4.825	0.8885	0.178
28-Nov-96	6.7	19.15	44.15	0.225	0.25	0.06	4.825	0.8885	0.178
29-Nov-96	6.4	17.49	42.49	0.225	0.25	0.06	4.825	0.8885	0.178
30-Nov-96	5.9	15.89	40.89	0.225	0.25	0.06	4.825	0.8885	0.178
1-Dec-96	5.8	11.39	36.39	0.225	0.25	0.06	4.825	0.8885	0.178
2-Dec-96	5.1	11.39	36.39	0.225	0.25	0.06	4.825	0.8885	0.178
3-Dec-96	5.1	9.56	34.56	0.225	0.25	0.06	4.825	0.8885	0.178
4-Dec-96	20.7	8.68	33.68	0.225	0.25	0.06	4.825	0.8885	0.178
5-Dec-96	16.6	8.68	33.68	0.225	0.25	0.06	4.825	0.8885	0.178
6-Dec-96	17.8	13.33	38.33	0.225	0.25	0.06	4.825	0.8885	0.178
7-Dec-96	18.1	14.34	39.34	0.225	0.25	0.06	4.825	0.8885	0.178
8-Dec-96	18.1	14.34	39.34	0.225	0.25	0.06	4.825	0.8885	0.178

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
9-Dec-96	18.1	14.34	39.34	0.225	0.25	0.06	4.825	0.8885	0.178
10-Dec-96	18.1	14.34	39.34	0.225	0.25	0.06	4.825	0.8885	0.178
11-Dec-96	17.6	14.34	39.34	0.225	0.25	0.06	4.825	0.8885	0.178
12-Dec-96	14.3	14.34	39.34	0.225	0.25	0.06	4.825	0.8885	0.178
13-Dec-96	11.0	13.83	38.83	0.225	0.25	0.06	4.825	0.8885	0.178
14-Dec-96	9.9	11.39	36.39	0.225	0.25	0.06	4.825	0.8885	0.178
15-Dec-96	10.2	9.56	34.56	0.225	0.25	0.09	4.825	0.8885	0.24
16-Dec-96	11.0	9.11	34.11	0.225	0.25	0.095	4.825	1.05	0.356
17-Dec-96	8.2	7.83	32.83	0.225	0.325	0.095	4.825	1.27	0.356
18-Dec-96	7.9	7.83	32.83	0.225	0.325	0.095	4.825	1.27	0.356
19-Dec-96	9.5	9.56	34.56	0.225	0.325	0.095	4.825	1.27	0.356
20-Dec-96	9.5	9.56	34.56	0.225	0.325	0.095	4.825	1.27	0.356
21-Dec-96	9.9	10.01	35.01	0.225	0.325	0.095	4.825	1.27	0.356
22-Dec-96	11.0	10.46	35.46	0.225	0.325	0.095	4.825	1.27	0.356
23-Dec-96	12.6	10.92	35.92	0.225	0.325	0.095	4.825	1.27	0.356
24-Dec-96	9.9	11.87	36.87	0.225	0.325	0.095	4.825	1.27	0.356
25-Dec-96	10.2	10.01	35.01	0.225	0.325	0.095	4.825	1.27	0.356
26-Dec-96	10.2	9.56	34.56	0.225	0.325	0.095	4.825	1.27	0.356
27-Dec-96	9.2	9.56	34.56	0.225	0.325	0.095	4.825	1.27	0.356
28-Dec-96	8.8	8.68	33.68	0.225	0.325	0.095	4.825	1.27	0.356
29-Dec-96	8.5	8.68	33.68	0.225	0.325	0.095	4.825	1.27	0.356
30-Dec-96	8.2	7.83	32.83	0.225	0.325	0.095	4.825	1.27	0.356
31-Dec-96	8.2	7.83	32.83	0.225	0.325	0.095	4.825	1.27	0.356
1-Jan-97	9.2	7.83	32.83	0.25	0.325	0.095	5.4	1.27	0.356
2-Jan-97	11.0	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
3-Jan-97	10.6	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
4-Jan-97	11.0	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
5-Jan-97	9.2	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
6-Jan-97	6.4	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
7-Jan-97	8.8	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
8-Jan-97	10.2	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
9-Jan-97	9.9	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
10-Jan-97	7.9	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
11-Jan-97	8.2	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
12-Jan-97	9.5	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
13-Jan-97	8.2	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
14-Jan-97	6.7	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
15-Jan-97	6.7	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
16-Jan-97	11.8	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
17-Jan-97	14.3	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
18-Jan-97	14.3	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
19-Jan-97	14.3	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
20-Jan-97	10.6	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
21-Jan-97	6.2	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
22-Jan-97	4.7	7.83	32.83	0.35	0.325	0.095	6.65	1.27	0.356
23-Jan-97	4.4	7.83	32.83	0.35	0.325	0.1	6.65	1.27	0.48
24-Jan-97	4.4	7.83	32.83	0.35	0.325	0.125	6.65	1.27	0.542
25-Jan-97	4.4	7.83	32.83	0.35	0.325	0.125	6.65	1.27	0.542
26-Jan-97	4.4	7.83	32.83	0.35	0.325	0.125	6.65	1.27	0.542
27-Jan-97	4.4	7.83	32.83	0.35	0.325	0.125	6.65	1.27	0.542
28-Jan-97	4.4	7.83	32.83	0.35	0.325	0.125	6.65	1.27	0.542
29-Jan-97	4.9	7.83	32.83	0.35	0.325	0.125	6.65	1.27	0.542
30-Jan-97	5.0	7.83	32.83	0.45	0.4	0.125	7.9	1.49	0.542
31-Jan-97	7.0	7.83	32.83	0.45	0.45	0.125	7.95	1.575	0.542
1-Feb-97	16.1	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
2-Feb-97	17.1	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
3-Feb-97	14.3	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
4-Feb-97	17.6	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
5-Feb-97	10.2	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
6-Feb-97	6.7	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
7-Feb-97	6.3	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
8-Feb-97	6.7	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
9-Feb-97	5.6	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
10-Feb-97	4.0	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
11-Feb-97	3.8	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
12-Feb-97	3.7	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
13-Feb-97	7.6	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
14-Feb-97	15.2	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
15-Feb-97	15.6	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
16-Feb-97	15.6	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
17-Feb-97	15.6	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
18-Feb-97	14.3	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
19-Feb-97	8.5	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
20-Feb-97	5.6	8.33	33.33	0.45	0.45	0.125	7.95	1.575	0.542
21-Feb-97	4.4	8.33	33.33	0.45	0.5	0.15	7.95	1.66	0.61
22-Feb-97	4.0	8.33	33.33	0.45	0.5	0.13	7.95	1.75	0.485
23-Feb-97	3.9	8.33	33.33	0.45	0.5	0.13	8	1.75	0.485
24-Feb-97	4.0	8.33	33.33	0.365	0.5	0.13	6.525	1.75	0.485

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
25-Feb-97	4.1	8.33	33.33	0.365	0.5	0.13	6.525	1.75	0.485
26-Feb-97	4.0	8.33	33.33	0.365	0.5	0.13	6.525	1.75	0.485
27-Feb-97	12.6	8.33	33.33	0.365	0.5	0.13	6.525	1.75	0.485
28-Feb-97	12.6	8.33	33.33	0.365	0.5	0.13	6.525	1.75	0.485
1-Mar-97	14.5	12.40	37.40	0.365	0.5	0.13	6.525	1.75	0.485
2-Mar-97	14.3	12.40	37.40	0.365	0.5	0.13	6.525	1.75	0.485
3-Mar-97	14.5	12.40	37.40	0.365	0.5	0.13	6.525	1.75	0.485
4-Mar-97	15.2	12.40	37.40	0.365	0.5	0.13	6.525	1.75	0.485
5-Mar-97	9.9	12.40	37.40	0.365	0.5	0.13	6.525	1.75	0.485
6-Mar-97	8.5	12.40	37.40	0.365	0.5	0.13	6.525	1.75	0.485
7-Mar-97	7.9	12.40	37.40	0.365	0.5	0.13	6.525	1.75	0.485
8-Mar-97	8.0	12.40	37.40	0.365	0.5	0.11	6.525	1.84	0.36
9-Mar-97	8.0	12.40	37.40	0.28	0.565	0.13	5.05	1.965	0.4815
10-Mar-97	7.1	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
11-Mar-97	5.1	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
12-Mar-97	4.4	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
13-Mar-97	4.1	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
14-Mar-97	8.2	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
15-Mar-97	18.1	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
16-Mar-97	19.1	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
17-Mar-97	19.1	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
18-Mar-97	19.1	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
19-Mar-97	17.1	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
20-Mar-97	13.0	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
21-Mar-97	12.4	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
22-Mar-97	12.2	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
23-Mar-97	11.0	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
24-Mar-97	10.6	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
25-Mar-97	9.5	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
26-Mar-97	13.0	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
27-Mar-97	19.9	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
28-Mar-97	19.4	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
29-Mar-97	20.4	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
30-Mar-97	21.3	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
31-Mar-97	20.7	12.40	37.40	0.21	0.565	0.13	3.72	1.965	0.4815
1-Apr-97	19.6	13.33	38.33	0.14	0.565	0.13	2.39	1.965	0.4815
2-Apr-97	15.6	13.33	38.33	0.87	0.565	0.13	1.489	1.965	0.4815
3-Apr-97	8.7	13.33	38.33	0.87	0.565	0.13	1.489	1.965	0.4815
4-Apr-97	8.0	13.33	38.33	0.87	0.565	0.13	1.489	1.965	0.4815

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
5-Apr-97	4.4	13.33	38.33	0.87	0.565	0.13	1.489	1.965	0.4815
6-Apr-97	3.2	13.33	38.33	0.87	0.565	0.13	1.489	1.965	0.4815
7-Apr-97	2.6	13.33	38.33	0.87	0.565	0.13	1.489	1.965	0.4815
8-Apr-97	3.2	13.33	38.33	0.87	0.565	0.13	1.489	1.965	0.4815
9-Apr-97	2.8	13.33	38.33	0.87	0.565	0.13	1.489	1.965	0.4815
10-Apr-97	10.8	13.33	38.33	0.87	0.63	0.15	1.489	2.09	0.60
11-Apr-97	13.0	13.33	38.33	0.87	0.415	0.12	1.489	1.336	0.4745
12-Apr-97	12.6	14.34	39.34	0.87	0.415	0.12	1.489	1.336	0.4745
13-Apr-97	11.8	14.34	39.34	0.87	0.415	0.12	1.489	1.336	0.4745
14-Apr-97	13.2	14.34	39.34	0.87	0.415	0.12	1.489	1.336	0.4745
15-Apr-97	14.3	14.34	39.34	0.87	0.415	0.12	1.489	1.336	0.4745
16-Apr-97	10.2	14.34	39.34	0.87	0.415	0.12	1.489	1.336	0.4745
17-Apr-97	12.2	14.34	39.34	0.87	0.415	0.12	1.489	1.336	0.4745
18-Apr-97	18.6	14.34	39.34	0.87	0.415	0.12	1.489	1.336	0.4745
19-Apr-97	23.0	14.34	39.34	1.6	0.415	0.12	0.588	1.336	0.4745
20-Apr-97	14.5	14.34	39.34	0.92	0.415	0.12	2.094	1.336	0.4745
21-Apr-97	14.7	14.34	39.34	0.92	0.415	0.12	2.094	1.336	0.4745
22-Apr-97	14.3	14.34	39.34	0.92	0.415	0.12	2.094	1.336	0.4745
23-Apr-97	17.6	14.34	39.34	0.92	0.415	0.12	2.094	1.336	0.4745
24-Apr-97	15.2	14.34	39.34	0.92	0.415	0.12	2.094	1.336	0.4745
25-Apr-97	14.5	14.34	39.34	0.92	0.415	0.12	2.094	1.336	0.4745
26-Apr-97	17.1	14.34	39.34	0.92	0.415	0.12	2.094	1.336	0.4745
27-Apr-97	17.1	14.34	39.34	0.92	0.415	0.12	2.094	1.336	0.4745
28-Apr-97	12.6	14.34	39.34	0.92	0.415	0.12	2.094	1.336	0.4745
29-Apr-97	10.4	14.34	39.34	0.92	0.415	0.12	2.094	1.336	0.4745
30-Apr-97	8.0	14.34	39.34	0.92	0.415	0.12	2.094	1.336	0.4745
1-May-97	7.6	34.64	59.64	0.92	0.415	0.12	2.094	1.336	0.4745
2-May-97	7.3	31.97	56.97	0.92	0.415	0.12	2.094	1.336	0.4745
3-May-97	7.9	29.37	54.37	0.92	0.415	0.12	2.094	1.336	0.4745
4-May-97	7.3	28.09	53.09	0.92	0.415	0.12	2.094	1.336	0.4745
5-May-97	8.0	27.46	52.46	0.92	0.415	0.12	2.094	1.336	0.4745
6-May-97	8.5	29.37	54.37	0.92	0.415	0.12	2.094	1.336	0.4745
7-May-97	8.2	31.97	56.97	0.92	0.2	0.09	2.094	0.582	0.35
8-May-97	8.5	36.00	61.00	0.92	0.225	0.065	2.094	0.645	0.2625
9-May-97	9.7	38.77	63.77	0.24	0.225	0.065	3.6	0.645	0.2625
10-May-97	12.6	45.97	70.97	0.23	0.225	0.065	3.625	0.645	0.2625
11-May-97	13.0	49.71	74.71	0.23	0.225	0.065	3.625	0.645	0.2625
12-May-97	12.2	52.00	77.00	0.23	0.225	0.065	3.625	0.645	0.2625
13-May-97	12.0	54.32	79.32	0.23	0.225	0.065	3.625	0.645	0.2625

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
14-May-97	9.9	44.50	69.50	0.23	0.225	0.065	3.625	0.645	0.2625
15-May-97	10.6	37.37	62.37	0.23	0.225	0.065	3.625	0.645	0.2625
16-May-97	12.6	35.31	60.31	0.23	0.225	0.065	3.625	0.645	0.2625
17-May-97	13.0	30.66	55.66	0.23	0.225	0.065	3.625	0.645	0.2625
18-May-97	13.8	28.09	53.09	0.23	0.225	0.065	3.625	0.645	0.2625
19-May-97	15.6	31.97	56.97	0.23	0.225	0.065	3.625	0.645	0.2625
20-May-97	14.0	34.64	59.64	0.23	0.225	0.065	3.625	0.645	0.2625
21-May-97	14.0	36.00	61.00	0.23	0.225	0.065	3.625	0.645	0.2625
22-May-97	14.5	36.68	61.68	0.23	0.225	0.065	3.625	0.645	0.2625
23-May-97	19.1	38.77	63.77	0.23	0.225	0.065	3.625	0.645	0.2625
24-May-97	28.0	43.04	68.04	0.23	0.225	0.065	3.625	0.645	0.2625
25-May-97	27.3	44.50	69.50	0.23	0.225	0.065	3.625	0.645	0.2625
26-May-97	27.3	34.64	59.64	0.23	0.225	0.065	3.625	0.645	0.2625
27-May-97	27.3	7.83	32.83	0.23	0.225	0.065	3.625	0.645	0.2625
28-May-97	18.6	29.37	54.37	0.23	0.225	0.065	3.625	0.645	0.2625
29-May-97	20.7	36.00	61.00	0.23	0.225	0.065	3.625	0.645	0.2625
30-May-97	21.8	32.63	57.63	0.23	0.225	0.065	3.625	0.645	0.2625
31-May-97	18.1	30.01	55.01	0.23	0.225	0.065	3.625	0.645	0.2625
1-Jun-97	12.6	89.38	114.38	0.23	0.225	0.065	3.625	0.645	0.2625
2-Jun-97	11.8	88.58	113.58	0.23	0.225	0.065	3.625	0.645	0.2625
3-Jun-97	10.2	87.06	112.06	0.23	0.225	0.065	3.625	0.645	0.2625
4-Jun-97	9.4	86.18	111.18	0.23	0.225	0.065	3.625	0.645	0.2625
5-Jun-97	9.9	86.70	111.70	0.23	0.225	0.065	3.625	0.645	0.2625
6-Jun-97	10.4	87.25	112.25	0.23	0.25	0.04	3.625	0.708	0.18
7-Jun-97	14.7	91.53	116.53	0.23	0.245	0.03	3.625	0.696	0.15
8-Jun-97	15.2	91.98	116.98	0.22	0.245	0.03	3.65	0.696	0.15
9-Jun-97	15.6	78.81	103.81	0.16	0.245	0.03	2.64	0.696	0.15
10-Jun-97	16.1	79.28	104.28	0.16	0.245	0.03	2.64	0.696	0.15
11-Jun-97	9.5	72.72	97.72	0.16	0.245	0.03	2.64	0.696	0.15
12-Jun-97	8.2	71.39	96.39	0.16	0.245	0.03	2.64	0.696	0.15
13-Jun-97	8.2	71.39	96.39	0.16	0.245	0.03	2.64	0.696	0.15
14-Jun-97	7.3	70.47	95.47	0.16	0.245	0.03	2.64	0.696	0.15
15-Jun-97	4.2	67.42	92.42	0.16	0.245	0.03	2.64	0.696	0.15
16-Jun-97	6.6	69.75	94.75	0.16	0.245	0.03	2.64	0.696	0.15
17-Jun-97	9.2	72.37	97.37	0.16	0.245	0.03	2.64	0.696	0.15
18-Jun-97	8.2	71.39	96.39	0.16	0.245	0.03	2.64	0.696	0.15
19-Jun-97	5.4	48.06	73.06	0.16	0.245	0.03	2.64	0.696	0.15
20-Jun-97	14.5	57.16	82.16	0.16	0.245	0.03	2.64	0.696	0.15
21-Jun-97	17.6	60.24	85.24	0.16	0.245	0.03	2.64	0.696	0.15

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
22-Jun-97	19.1	61.78	86.78	0.16	0.245	0.03	2.64	0.696	0.15
23-Jun-97	20.2	62.85	87.85	0.16	0.245	0.03	2.64	0.696	0.15
24-Jun-97	17.8	60.49	85.49	0.16	0.245	0.03	2.64	0.696	0.15
25-Jun-97	16.6	59.26	84.26	0.16	0.245	0.03	2.64	0.696	0.15
26-Jun-97	13.4	56.07	81.07	0.16	0.245	0.02	2.64	0.696	0.12
27-Jun-97	13.0	55.65	80.65	0.16	0.245	0.04	2.64	0.696	0.1125
28-Jun-97	9.9	52.56	77.56	0.16	0.245	0.04	2.64	0.696	0.1125
29-Jun-97	8.5	53.82	78.82	0.16	0.245	0.04	2.64	0.696	0.1125
30-Jun-97	8.2	53.50	78.50	0.16	0.245	0.04	2.64	0.696	0.1125
1-Jul-97	7.6	52.88	77.88	0.16	0.245	0.04	2.64	0.696	0.1125
2-Jul-97	8.0	53.34	78.34	0.16	0.245	0.04	2.64	0.696	0.1125
3-Jul-97	8.7	53.99	78.99	0.16	0.245	0.04	2.64	0.696	0.1125
4-Jul-97	15.2	60.46	85.46	0.16	0.245	0.04	2.64	0.696	0.1125
5-Jul-97	18.1	63.37	88.37	0.16	0.245	0.04	2.64	0.696	0.1125
6-Jul-97	18.6	63.88	88.88	0.16	0.245	0.04	2.64	0.696	0.1125
7-Jul-97	20.2	65.47	90.47	0.1	0.245	0.04	1.63	0.696	0.1125
8-Jul-97	18.6	63.88	88.88	0.115	0.245	0.04	0.827	0.696	0.1125
9-Jul-97	19.1	54.89	79.89	0.115	0.24	0.04	0.827	0.684	0.1125
10-Jul-97	20.7	56.51	81.51	0.115	0.24	0.04	0.827	0.516	0.1125
11-Jul-97	9.5	45.32	70.32	0.115	0.24	0.04	0.827	0.516	0.1125
12-Jul-97	9.2	44.98	69.98	0.115	0.24	0.04	0.827	0.516	0.1125
13-Jul-97	9.9	45.67	70.67	0.115	0.24	0.04	0.827	0.516	0.1125
14-Jul-97	5.4	41.17	66.17	0.115	0.24	0.04	0.827	0.516	0.1125
15-Jul-97	1.8	37.63	62.63	0.115	0.24	0.04	0.827	0.516	0.1125
16-Jul-97	2.1	37.90	62.90	0.115	0.24	0.04	0.827	0.516	0.1125
17-Jul-97	3.6	39.41	64.41	0.115	0.24	0.04	0.827	0.516	0.1125
18-Jul-97	3.2	39.03	64.03	0.115	0.24	0.04	0.827	0.516	0.1125
19-Jul-97	10.6	37.05	62.05	0.115	0.24	0.04	0.827	0.516	0.1125
20-Jul-97	16.1	42.54	67.54	0.115	0.24	0.04	0.827	0.516	0.1125
21-Jul-97	16.1	42.54	67.54	0.115	0.24	0.04	0.827	0.516	0.1125
22-Jul-97	15.2	41.61	66.61	0.115	0.24	0.04	0.827	0.516	0.1125
23-Jul-97	9.9	36.33	61.33	0.115	0.24	0.04	0.827	0.516	0.1125
24-Jul-97	6.2	32.60	57.60	0.115	0.24	0.04	0.827	0.516	0.1125
25-Jul-97	6.4	32.87	57.87	0.115	0.24	0.04	0.827	0.516	0.1125
26-Jul-97	8.2	34.65	59.65	0.115	0.24	0.04	0.827	0.516	0.1125
27-Jul-97	9.5	35.98	60.98	0.115	0.24	0.04	0.827	0.516	0.1125
28-Jul-97	9.5	35.98	60.98	0.115	0.24	0.06	0.827	0.516	0.10
29-Jul-97	10.2	45.72	70.72	0.115	0.24	0.075	0.827	0.516	0.117
30-Jul-97	10.2	45.72	70.72	0.115	0.24	0.075	0.827	0.516	0.117

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
31-Jul-97	10.6	46.08	71.08	0.115	0.24	0.075	0.827	0.516	0.117
1-Aug-97	17.1	52.54	77.54	0.115	0.24	0.075	0.827	0.516	0.117
2-Aug-97	20.2	55.65	80.65	0.115	0.24	0.075	0.827	0.516	0.117
3-Aug-97	20.7	56.19	81.19	0.115	0.24	0.075	0.827	0.516	0.117
4-Aug-97	20.7	56.19	81.19	0.115	0.24	0.075	0.827	0.516	0.117
5-Aug-97	20.2	55.65	80.65	0.115	0.24	0.075	0.827	0.516	0.117
6-Aug-97	12.6	48.03	73.03	0.115	0.24	0.075	0.827	0.516	0.117
7-Aug-97	12.6	48.03	73.03	0.115	0.24	0.09	0.827	0.348	0.13
8-Aug-97	11.0	49.31	74.31	0.115	0.265	0.07	0.827	0.368	0.5565
9-Aug-97	9.0	47.35	72.35	0.13	0.265	0.07	0.024	0.368	0.5565
10-Aug-97	8.2	46.53	71.53	0.1	0.265	0.07	0.0345	0.368	0.5565
11-Aug-97	8.2	46.53	71.53	0.1	0.265	0.07	0.0345	0.368	0.5565
12-Aug-97	7.3	45.61	70.61	0.1	0.265	0.07	0.0345	0.368	0.5565
13-Aug-97	9.2	47.52	72.52	0.1	0.265	0.07	0.0345	0.368	0.5565
14-Aug-97	12.8	51.10	76.10	0.1	0.265	0.07	0.0345	0.368	0.5565
15-Aug-97	15.2	53.49	78.49	0.1	0.265	0.07	0.0345	0.368	0.5565
16-Aug-97	19.1	57.43	82.43	0.1	0.265	0.07	0.0345	0.368	0.5565
17-Aug-97	18.1	56.39	81.39	0.1	0.265	0.07	0.0345	0.368	0.5565
18-Aug-97	21.0	35.64	60.64	0.1	0.265	0.07	0.0345	0.368	0.5565
19-Aug-97	15.9	30.50	55.50	0.1	0.265	0.07	0.0345	0.368	0.5565
20-Aug-97	11.8	26.40	51.40	0.1	0.265	0.07	0.0345	0.368	0.5565
21-Aug-97	13.0	27.61	52.61	0.1	0.265	0.07	0.0345	0.368	0.5565
22-Aug-97	12.8	27.41	52.41	0.1	0.265	0.07	0.0345	0.368	0.5565
23-Aug-97	11.8	26.40	51.40	0.1	0.265	0.07	0.0345	0.368	0.5565
24-Aug-97	15.4	30.03	55.03	0.1	0.265	0.07	0.0345	0.368	0.5565
25-Aug-97	27.3	41.98	66.98	0.1	0.265	0.07	0.0345	0.368	0.5565
26-Aug-97	12.2	26.79	51.79	0.1	0.265	0.07	0.0345	0.368	0.5565
27-Aug-97	10.8	25.44	50.44	0.1	0.265	0.07	0.0345	0.368	0.5565
28-Aug-97	11.0	45.41	70.41	0.1	0.265	0.07	0.0345	0.368	0.5565
29-Aug-97	20.7	55.14	80.14	0.1	0.265	0.07	0.0345	0.368	0.5565
30-Aug-97	13.4	47.82	72.82	0.1	0.265	0.07	0.0345	0.368	0.5565
31-Aug-97	11.8	46.18	71.18	0.1	0.265	0.07	0.0345	0.368	0.5565
1-Sep-97	8.2	48.95	73.95	0.1	0.265	0.07	0.0345	0.368	0.5565
2-Sep-97	8.5	44.50	69.50	0.1	0.265	0.07	0.0345	0.368	0.5565
3-Sep-97	8.8	38.07	63.07	0.1	0.265	0.07	0.0345	0.368	0.5565
4-Sep-97	7.6	33.29	58.29	0.1	0.29	0.05	0.0345	0.388	0.98
5-Sep-97	3.1	26.84	51.84	0.07	0.295	0.055	0.045	0.5105	0.533
6-Sep-97	3.0	24.38	49.38	0.785	0.295	0.055	0.0845	0.5105	0.533
7-Sep-97	9.2	29.37	54.37	0.785	0.295	0.055	0.0845	0.5105	0.533

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
8-Sep-97	9.9	31.97	56.97	0.785	0.295	0.055	0.0845	0.5105	0.533
9-Sep-97	9.7	32.63	57.63	0.785	0.295	0.055	0.0845	0.5105	0.533
10-Sep-97	8.4	33.29	58.29	0.785	0.295	0.055	0.0845	0.5105	0.533
11-Sep-97	8.4	33.96	58.96	0.785	0.295	0.055	0.0845	0.5105	0.533
12-Sep-97	8.4	34.64	59.64	0.785	0.295	0.055	0.0845	0.5105	0.533
13-Sep-97	18.1	61.47	86.47	0.785	0.295	0.055	0.0845	0.5105	0.533
14-Sep-97	27.3	96.31	121.31	0.785	0.295	0.055	0.0845	0.5105	0.533
15-Sep-97	21.8	109.57	134.57	0.785	0.295	0.055	0.0845	0.5105	0.533
16-Sep-97	34.3	135.49	160.49	1.5	0.295	0.055	0.124	0.5105	0.533
17-Sep-97	41.9	167.31	192.31	1.3	0.295	0.055	13.562	0.5105	0.533
18-Sep-97	41.9	165.13	190.13	1.3	0.295	0.055	13.562	0.5105	0.533
19-Sep-97	41.9	158.64	183.64	1.3	0.295	0.055	13.562	0.5105	0.533
20-Sep-97	52.2	141.70	166.70	1.3	0.295	0.055	13.562	0.5105	0.533
21-Sep-97	52.2	131.40	156.40	1.3	0.295	0.055	13.562	0.5105	0.533
22-Sep-97	52.2	123.33	148.33	1.3	0.295	0.055	13.562	0.5105	0.533
23-Sep-97	52.2	111.51	136.51	1.3	0.295	0.055	13.562	0.5105	0.533
24-Sep-97	52.2	100.05	125.05	1.1	0.295	0.055	27	0.5105	0.533
25-Sep-97	52.2	88.06	113.06	1.15	0.295	0.055	25.05	0.5105	0.533
26-Sep-97	52.2	78.30	103.30	1.15	0.295	0.055	25.05	0.5105	0.533
27-Sep-97	52.2	73.12	98.12	1.15	0.295	0.055	25.05	0.5105	0.533
28-Sep-97	52.2	76.56	101.56	1.15	0.295	0.055	25.05	0.5105	0.533
29-Sep-97	52.2	89.88	114.88	1.15	0.295	0.055	25.05	0.5105	0.533
30-Sep-97	52.2	100.05	125.05	1.15	0.295	0.055	25.05	0.5105	0.533
1-Oct-97	49.4	111.51	136.51	1.15	0.295	0.055	25.05	0.5105	0.533
2-Oct-97	48.4	109.57	134.57	1.15	0.3	0.06	25.05	0.633	0.09
3-Oct-97	48.4	109.57	134.57	1.15	0.35	0.07	25.05	1.6965	0.154
4-Oct-97	45.7	103.83	128.83	1.2	0.35	0.07	23.1	1.6965	0.154
5-Oct-97	44.0	94.46	119.46	0.925	0.35	0.07	15.975	1.6965	0.154
6-Oct-97	44.9	83.58	108.58	0.925	0.35	0.07	15.975	1.6965	0.154
7-Oct-97	43.1	74.83	99.83	0.925	0.35	0.07	15.975	1.6965	0.154
8-Oct-97	43.1	69.73	94.73	0.925	0.35	0.07	15.975	1.6965	0.154
9-Oct-97	41.0	68.05	93.05	0.925	0.35	0.07	15.975	1.6965	0.154
10-Oct-97	47.5	63.09	88.09	0.925	0.35	0.07	15.975	1.6965	0.154
11-Oct-97	49.8	61.47	86.47	0.925	0.35	0.07	15.975	1.6965	0.154
12-Oct-97	49.8	64.73	89.73	0.925	0.35	0.07	15.975	1.6965	0.154
13-Oct-97	48.4	69.73	94.73	0.925	0.35	0.07	15.975	1.6965	0.154
14-Oct-97	46.6	64.73	89.73	0.925	0.35	0.07	15.975	1.6965	0.154
15-Oct-97	43.1	64.73	89.73	0.925	0.35	0.07	15.975	1.6965	0.154
16-Oct-97	39.8	58.26	83.26	0.925	0.35	0.07	15.975	1.6965	0.154

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
17-Oct-97	40.6	55.10	80.10	0.925	0.35	0.07	15.975	1.6965	0.154
18-Oct-97	40.2	50.47	75.47	0.925	0.35	0.07	15.975	1.6965	0.154
19-Oct-97	33.6	47.45	72.45	0.925	0.35	0.07	15.975	1.6965	0.154
20-Oct-97	27.3	45.97	70.97	0.925	0.35	0.07	15.975	1.6965	0.154
21-Oct-97	25.4	41.60	66.60	0.925	0.35	0.07	15.975	1.6965	0.154
22-Oct-97	24.8	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
23-Oct-97	24.5	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
24-Oct-97	23.0	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
25-Oct-97	23.3	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
26-Oct-97	26.0	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
27-Oct-97	32.1	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
28-Oct-97	29.3	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
29-Oct-97	20.7	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
30-Oct-97	20.4	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
31-Oct-97	19.1	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
1-Nov-97	17.1	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
2-Nov-97	18.6	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
3-Nov-97	19.1	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
4-Nov-97	19.1	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
5-Nov-97	19.4	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
6-Nov-97	19.6	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
7-Nov-97	21.8	42.32	67.32	0.925	0.35	0.07	15.975	1.6965	0.154
8-Nov-97	27.7	42.32	67.32	0.925	0.35	0.07	15.975	1.6965	0.154
9-Nov-97	28.7	42.32	67.32	0.925	0.35	0.07	15.975	1.6965	0.154
10-Nov-97	28.7	41.60	66.60	0.925	0.35	0.07	15.975	1.6965	0.154
11-Nov-97	27.3	40.18	65.18	0.925	0.35	0.07	15.975	1.6965	0.154
12-Nov-97	21.8	38.77	63.77	0.925	0.35	0.07	15.975	1.6965	0.154
13-Nov-97	18.6	37.37	62.37	0.925	0.35	0.07	15.975	1.6965	0.154
14-Nov-97	18.1	35.31	60.31	0.65	0.35	0.07	8.85	1.6965	0.154
15-Nov-97	17.8	33.29	58.29	0.365	0.35	0.07	4.4645	1.6965	0.154
16-Nov-97	15.2	32.63	57.63	0.365	0.35	0.07	4.4645	1.6965	0.154
17-Nov-97	14.3	30.66	55.66	0.365	0.35	0.07	4.4645	1.6965	0.154
18-Nov-97	16.1	31.97	56.97	0.365	0.4	0.08	4.4645	2.76	0.22
19-Nov-97	15.4	31.97	56.97	0.365	0.4225	0.08	4.4645	2.7275	0.3105
20-Nov-97	13.8	30.66	55.66	0.365	0.4225	0.08	4.4645	2.7275	0.3105
21-Nov-97	13.0	30.66	55.66	0.365	0.4225	0.08	4.4645	2.7275	0.3105
22-Nov-97	15.6	30.66	55.66	0.365	0.4225	0.08	4.4645	2.7275	0.3105
23-Nov-97	19.1	30.66	55.66	0.365	0.4225	0.08	4.4645	2.7275	0.3105
24-Nov-97	19.6	34.64	59.64	0.365	0.4225	0.08	4.4645	2.7275	0.3105

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
25-Nov-97	19.4	40.18	65.18	0.365	0.4225	0.08	4.4645	2.7275	0.3105
26-Nov-97	17.1	41.60	66.60	0.365	0.4225	0.08	4.4645	2.7275	0.3105
27-Nov-97	15.9	40.89	65.89	0.365	0.4225	0.08	4.4645	2.7275	0.3105
28-Nov-97	9.5	41.60	66.60	0.365	0.4225	0.08	4.4645	2.7275	0.3105
29-Nov-97	3.2	38.07	63.07	0.365	0.4225	0.08	4.4645	2.7275	0.3105
30-Nov-97	5.6	34.64	59.64	0.365	0.4225	0.08	4.4645	2.7275	0.3105
1-Dec-97	3.9	33.96	58.96	0.365	0.4225	0.08	4.4645	2.7275	0.3105
2-Dec-97	3.0	31.97	56.97	0.365	0.4225	0.08	4.4645	2.7275	0.3105
3-Dec-97	2.3	28.09	53.09	0.365	0.4225	0.08	4.4645	2.7275	0.3105
4-Dec-97	4.6	26.84	51.84	0.365	0.4225	0.08	4.4645	2.7275	0.3105
5-Dec-97	4.3	26.84	51.84	0.365	0.4225	0.08	4.4645	2.7275	0.3105
6-Dec-97	4.4	26.84	51.84	0.365	0.4225	0.08	4.4645	2.7275	0.3105
7-Dec-97	4.4	26.22	51.22	0.365	0.4225	0.08	4.4645	2.7275	0.3105
8-Dec-97	4.7	25.60	50.60	0.365	0.4225	0.08	4.4645	2.7275	0.3105
9-Dec-97	4.2	24.99	49.99	0.365	0.4225	0.08	4.4645	2.7275	0.40
10-Dec-97	4.0	23.78	48.78	0.365	0.4225	0.1	4.4645	2.7275	0.3575
11-Dec-97	3.8	22.59	47.59	0.365	0.4225	0.1	4.4645	2.7275	0.3575
12-Dec-97	3.6	22.01	47.01	0.365	0.4225	0.1	4.4645	2.7275	0.3575
13-Dec-97	3.4	18.59	43.59	0.08	0.4225	0.1	0.079	2.7275	0.3575
14-Dec-97	3.2	18.59	43.59	0.055	0.445	0.1	0.0475	2.695	0.3575
15-Dec-97	3.1	18.04	43.04	0.055	0.4625	0.1	0.0475	2.6275	0.3575
16-Dec-97	2.9	15.37	40.37	0.055	0.4625	0.1	0.0475	2.6275	0.3575
17-Dec-97	2.7	13.83	38.83	0.055	0.4625	0.1	0.0475	2.6275	0.3575
18-Dec-97	2.6	16.42	41.42	0.055	0.4625	0.1	0.0475	2.6275	0.3575
19-Dec-97	2.4	16.95	41.95	0.055	0.4625	0.1	0.0475	2.6275	0.3575
20-Dec-97	0.5	16.42	41.42	0.055	0.4625	0.1	0.0475	2.6275	0.3575
21-Dec-97	0.0	18.04	43.04	0.055	0.4625	0.1	0.0475	2.6275	0.3575
22-Dec-97	3.7	20.85	45.85	0.055	0.4625	0.1	0.0475	2.6275	0.3575
23-Dec-97	4.0	20.85	45.85	0.055	0.4625	0.1	0.0475	2.6275	0.3575
24-Dec-97	4.0	20.27	45.27	0.055	0.4625	0.1	0.0475	2.6275	0.3575
25-Dec-97	4.0	20.85	45.85	0.055	0.4625	0.1	0.0475	2.6275	0.3575
26-Dec-97	4.0	20.27	45.27	0.055	0.4625	0.1	0.0475	2.6275	0.3575
27-Dec-97	3.9	20.27	45.27	0.055	0.4625	0.1	0.0475	2.6275	0.3575
28-Dec-97	3.8	19.71	44.71	0.055	0.4625	0.1	0.0475	2.6275	0.3575
29-Dec-97	3.8	19.15	44.15	0.055	0.4625	0.1	0.0475	2.6275	0.3575
30-Dec-97	3.8	18.59	43.59	0.055	0.4625	0.1	0.0475	2.6275	0.3575
31-Dec-97	3.8	16.42	41.42	0.055	0.4625	0.1	0.0475	2.6275	0.3575
1-Jan-98	5.6	16.42	41.42	0.055	0.4625	0.1	0.0475	2.6275	0.3575
2-Jan-98	5.6	16.63	41.63	0.055	0.4625	0.1	0.0475	2.6275	0.3575

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
3-Jan-98	0.0	16.42	41.42	0.055	0.4625	0.1	0.0475	2.6275	0.3575
4-Jan-98	0.0	15.37	40.37	0.055	0.4625	0.1	0.0475	2.6275	0.3575
5-Jan-98	0.0	14.33	39.33	0.055	0.4625	0.1	0.0475	2.6275	0.3575
6-Jan-98	0.0	14.33	39.33	0.055	0.4625	0.1	0.0475	2.6275	0.3575
7-Jan-98	0.0	13.33	38.33	0.055	0.4625	0.1	0.0475	2.6275	0.3575
8-Jan-98	0.0	11.40	36.40	0.055	0.4625	0.1	0.0475	2.6275	0.3575
9-Jan-98	0.0	10.47	35.47	0.055	0.4625	0.1	0.0475	2.6275	0.3575
10-Jan-98	0.0	9.12	34.12	0.055	0.4625	0.1	0.0475	2.6275	0.3575
11-Jan-98	0.0	7.83	32.83	0.055	0.4625	0.1	0.0475	2.6275	0.3575
12-Jan-98	0.0	6.62	31.62	0.055	0.48	0.12	0.0475	2.56	0.32
13-Jan-98	0.0	5.83	30.83	0.055	0.53	0.125	0.0475	2.49	0.504
14-Jan-98	0.0	5.47	30.47	0.055	0.53	0.125	0.0475	2.49	0.504
15-Jan-98	0.0	4.05	29.05	0.055	0.53	0.125	0.0475	2.49	0.504
16-Jan-98	0.0	3.08	28.08	0.055	0.53	0.125	0.0475	2.49	0.504
17-Jan-98	0.0	2.78	27.78	0.055	0.53	0.125	0.0475	2.49	0.504
18-Jan-98	0.0	2.48	27.48	0.055	0.53	0.125	0.0475	2.49	0.504
19-Jan-98	0.0	2.20	27.20	0.055	0.53	0.125	0.0475	2.49	0.504
20-Jan-98	0.0	2.20	27.20	0.055	0.53	0.125	0.0475	2.49	0.504
21-Jan-98	0.0	2.48	27.48	0.055	0.53	0.125	0.0475	2.49	0.504
22-Jan-98	0.0	3.72	28.72	0.055	0.53	0.125	0.0475	2.49	0.504
23-Jan-98	0.0	2.20	27.20	0.055	0.53	0.125	0.0475	2.49	0.504
24-Jan-98	0.0	1.20	26.20	0.055	0.53	0.125	0.0475	2.49	0.504
25-Jan-98	0.0	0.78	25.78	0.055	0.53	0.125	0.0475	2.49	0.504
26-Jan-98	0.0	0.98	25.98	0.03	0.53	0.125	0.016	2.49	0.504
27-Jan-98	0.0	0.42	25.42	0.03	0.53	0.125	0.018	2.49	0.504
28-Jan-98	0.0	0.15	25.15	0.03	0.53	0.125	0.018	2.49	0.504
29-Jan-98	0.0	0.01	25.01	0.03	0.53	0.125	0.018	2.49	0.504
30-Jan-98	0.0	0.01	25.01	0.03	0.53	0.125	0.018	2.49	0.504
31-Jan-98	0.0	0.01	25.01	0.03	0.53	0.125	0.018	2.49	0.504
1-Feb-98	0.0	0.01	25.01	0.03	0.53	0.125	0.018	2.49	0.504
2-Feb-98	0.0	0.01	25.01	0.03	0.53	0.125	0.018	2.49	0.504
3-Feb-98	0.0	0.01	25.01	0.03	0.53	0.125	0.018	2.49	0.504
4-Feb-98	0.0	0.01	25.01	0.03	0.53	0.125	0.018	2.49	0.504
5-Feb-98	0.0	0.01	25.01	0.03	0.53	0.125	0.018	2.49	0.504
6-Feb-98	0.0	0.01	25.01	0.03	0.53	0.125	0.018	2.49	0.504
7-Feb-98	0.0	0.01	25.01	0.03	0.53	0.125	0.018	2.49	0.504
8-Feb-98	0.0	0.01	25.01	0.03	0.53	0.125	0.018	2.49	0.504
9-Feb-98	0.0	0.01	25.01	0.03	0.53	0.13	0.018	2.49	0.69
10-Feb-98	0.0	0.01	25.01	0.03	0.53	0.15	0.018	2.49	0.787

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
11-Feb-98	0.0	0.01	25.01	0.03	0.53	0.15	0.018	2.49	0.787
12-Feb-98	0.0	0.01	25.01	0.03	0.53	0.15	0.018	2.49	0.787
13-Feb-98	0.0	0.01	25.01	0.03	0.53	0.15	0.018	2.49	0.787
14-Feb-98	0.0	0.01	25.01	0.03	0.53	0.15	0.018	2.49	0.787
15-Feb-98	0.0	0.01	25.01	0.03	0.53	0.15	0.018	2.49	0.787
16-Feb-98	0.0	0.01	25.01	0.03	0.53	0.15	0.018	2.49	0.787
17-Feb-98	0.0	0.01	25.01	0.03	0.53	0.15	0.02	2.49	0.787
18-Feb-98	0.0	0.01	25.01	0.1	0.53	0.15	0.0395	2.49	0.787
19-Feb-98	0.0	0.01	25.01	0.1	0.53	0.15	0.0395	2.49	0.787
20-Feb-98	0.0	0.01	25.01	0.1	0.53	0.15	0.0395	2.49	0.787
21-Feb-98	0.0	0.01	25.01	0.1	0.53	0.15	0.0395	2.49	0.787
22-Feb-98	0.0	0.01	25.01	0.1	0.53	0.15	0.0395	2.49	0.787
23-Feb-98	0.0	0.01	25.01	0.1	0.53	0.15	0.0395	2.49	0.787
24-Feb-98	0.0	0.01	25.01	0.1	0.53	0.15	0.0395	2.49	0.787
25-Feb-98	0.0	0.01	25.01	0.1	0.53	0.15	0.0395	2.49	0.787
26-Feb-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
27-Feb-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
28-Feb-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
1-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
2-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
3-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
4-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
5-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
6-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
7-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
8-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
9-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
10-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
11-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
12-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
13-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
14-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
15-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
16-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
17-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
18-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
19-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
20-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
21-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
22-Mar-98	0.0	0.01	25.01	0.1	0.58	0.15	0.0395	2.42	0.787
23-Mar-98	0.0	0.01	25.01	0.1	0.61	0.17	0.0395	2.75	0.88
24-Mar-98	0.0	0.01	25.01	0.1	0.62	0.165	0.0395	2.705	0.835
25-Mar-98	0.0	0.01	25.01	0.1	0.62	0.165	0.0395	2.705	0.835
26-Mar-98	0.0	0.01	25.01	0.1	0.62	0.165	0.0395	2.705	0.835
27-Mar-98	0.0	0.01	25.01	0.1	0.62	0.165	0.0395	2.705	0.835
28-Mar-98	0.0	0.01	25.01	0.1	0.62	0.165	0.0395	2.705	0.835
29-Mar-98	0.0	0.01	25.01	0.1	0.62	0.165	0.0395	2.705	0.835
30-Mar-98	0.0	0.01	25.01	0.1	0.62	0.165	0.0395	2.705	0.835
31-Mar-98	0.0	0.01	25.01	0.1	0.62	0.165	0.0395	2.705	0.835
1-Apr-98	0.0	0.01	25.01	0.1	0.62	0.165	0.0395	2.705	0.835
2-Apr-98	0.0	0.01	25.01	0.1	0.62	0.165	0.0395	2.705	0.835
3-Apr-98	0.0	0.01	25.01	0.1	0.62	0.165	0.0395	2.705	0.835
4-Apr-98	0.0	0.01	25.01	0.1	0.62	0.165	0.0395	2.705	0.835
5-Apr-98	0.0	0.01	25.01	0.1	0.63	0.16	0.0395	2.66	0.79
6-Apr-98	0.0	0.01	25.01	0.1	0.47	0.1	0.0395	1.995	0.496
7-Apr-98	0.0	0.01	25.01	0.1	0.47	0.1	0.0395	1.995	0.496
8-Apr-98	0.0	0.01	25.01	0.1	0.47	0.1	0.0395	1.995	0.496
9-Apr-98	0.0	0.01	25.01	0.1	0.47	0.1	0.0395	1.995	0.496
10-Apr-98	0.0	0.01	25.01	0.1	0.47	0.1	0.0395	1.995	0.496
11-Apr-98	0.0	0.01	25.01	0.1	0.47	0.1	0.0395	1.995	0.496
12-Apr-98	0.0	0.01	25.01	0.1	0.47	0.1	0.0395	1.995	0.496
13-Apr-98	0.0	0.01	25.01	0.1	0.47	0.1	0.0395	1.995	0.496
14-Apr-98	5.6	0.01	25.01	0.1	0.47	0.1	0.0395	1.995	0.496
15-Apr-98	10.2	0.01	25.01	0.1	0.47	0.1	0.0395	1.995	0.496
16-Apr-98	1.1	0.01	25.01	0.1	0.47	0.1	0.0395	1.995	0.496
17-Apr-98	0.8	0.01	25.01	0.1	0.47	0.1	0.0395	1.995	0.496
18-Apr-98	0.7	0.01	25.01	0.1	0.47	0.1	0.0395	1.995	0.496
19-Apr-98	0.6	0.01	25.01	0.1	0.47	0.1	0.0395	1.995	0.496
20-Apr-98	1.2	0.01	25.01	0.1	0.47	0.1	0.0395	1.995	0.496
21-Apr-98	2.1	14.33	39.33	0.17	0.47	0.1	0.059	1.995	0.496
22-Apr-98	3.6	41.60	66.60	0.115	0.47	0.1	0.063	1.995	0.496
23-Apr-98	5.6	70.57	95.57	0.115	0.47	0.1	0.063	1.995	0.496
24-Apr-98	7.0	72.27	97.27	0.115	0.47	0.1	0.063	1.995	0.496
25-Apr-98	11.0	81.80	106.80	0.115	0.47	0.1	0.063	1.995	0.496
26-Apr-98	14.3	88.97	113.97	0.115	0.47	0.1	0.063	1.995	0.496
27-Apr-98	16.6	119.35	144.35	0.115	0.47	0.1	0.063	1.995	0.496
28-Apr-98	13.4	158.63	183.63	0.115	0.47	0.1	0.063	1.995	0.496
29-Apr-98	9.5	164.03	189.03	0.115	0.47	0.1	0.063	1.995	0.496

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
30-Apr-98	10.2	164.03	189.03	0.115	0.47	0.1	0.063	1.995	0.496
1-May-98	9.2	151.15	176.15	0.115	0.47	0.1	0.063	1.995	0.496
2-May-98	8.5	141.70	166.70	0.115	0.47	0.1	0.063	1.995	0.496
3-May-98	8.2	130.38	155.38	0.115	0.47	0.1	0.063	1.995	0.496
4-May-98	8.9	113.45	138.45	0.115	0.47	0.1	0.063	1.995	0.496
5-May-98	10.4	100.12	125.12	0.115	0.47	0.1	0.063	1.995	0.496
6-May-98	6.0	92.62	117.62	0.115	0.47	0.1	0.063	1.995	0.496
7-May-98	5.3	91.70	116.70	0.115	0.47	0.1	0.063	1.995	0.496
8-May-98	6.9	88.97	113.97	0.115	0.47	0.1	0.063	1.995	0.496
9-May-98	12.2	82.70	107.70	0.115	0.47	0.1	0.063	1.995	0.496
10-May-98	13.0	78.30	103.30	0.115	0.47	0.1	0.063	1.995	0.496
11-May-98	13.4	67.22	92.22	0.115	0.47	0.1	0.063	1.995	0.496
12-May-98	11.8	59.05	84.05	0.06	0.47	0.1	0.067	1.995	0.496
13-May-98	6.9	55.10	80.10	0.06	0.47	0.1	0.0715	1.995	0.496
14-May-98	5.4	53.55	78.55	0.06	0.31	0.04	0.0715	1.33	0.20
15-May-98	4.9	50.47	75.47	0.06	0.255	0.05	0.0715	1.415	0.188
16-May-98	4.2	29.30	54.30	0.06	0.255	0.05	0.0715	1.415	0.188
17-May-98	3.8	43.03	68.03	0.06	0.255	0.05	0.0715	1.415	0.188
18-May-98	4.3	38.77	63.77	0.06	0.255	0.05	0.0715	1.415	0.188
19-May-98	5.4	36.68	61.68	0.06	0.255	0.05	0.0715	1.415	0.188
20-May-98	5.9	35.32	60.32	0.06	0.255	0.05	0.0715	1.415	0.188
21-May-98	5.6	34.63	59.63	0.06	0.255	0.05	0.0715	1.415	0.188
22-May-98	7.0	34.63	59.63	0.06	0.255	0.05	0.0715	1.415	0.188
23-May-98	12.2	33.97	58.97	0.06	0.255	0.05	0.0715	1.415	0.188
24-May-98	11.2	33.97	58.97	0.06	0.255	0.05	0.0715	1.415	0.188
25-May-98	11.8	36.68	61.68	0.06	0.255	0.05	0.0715	1.415	0.188
26-May-98	11.2	39.47	64.47	0.06	0.255	0.05	0.0715	1.415	0.188
27-May-98	6.9	39.47	64.47	0.06	0.255	0.05	0.0715	1.415	0.188
28-May-98	4.5	38.07	63.07	0.06	0.255	0.05	0.0715	1.415	0.188
29-May-98	3.8	36.00	61.00	0.06	0.255	0.05	0.0715	1.415	0.188
30-May-98	3.9	33.30	58.30	0.06	0.255	0.05	0.0715	1.415	0.188
31-May-98	3.5	28.73	53.73	0.06	0.255	0.05	0.0715	1.415	0.188
1-Jun-98	2.8	29.37	54.37	0.06	0.255	0.05	0.0715	1.415	0.188
2-Jun-98	2.6	30.65	55.65	0.06	0.255	0.05	0.0715	1.415	0.188
3-Jun-98	2.5	29.37	54.37	0.06	0.255	0.05	0.0715	1.415	0.188
4-Jun-98	2.7	29.37	54.37	0.06	0.255	0.05	0.076	1.415	0.188
5-Jun-98	5.9	27.47	52.47	0.055	0.255	0.05	0.0545	1.415	0.188
6-Jun-98	8.9	28.10	53.10	0.055	0.255	0.05	0.0545	1.415	0.188
7-Jun-98	10.4	28.10	53.10	0.055	0.255	0.05	0.0545	1.415	0.188

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
8-Jun-98	11.4	28.73	53.73	0.055	0.255	0.05	0.0545	1.415	0.188
9-Jun-98	11.2	28.73	53.73	0.055	0.255	0.05	0.0545	1.415	0.188
10-Jun-98	5.3	34.63	59.63	0.055	0.255	0.05	0.0545	1.415	0.188
11-Jun-98	3.2	52.00	77.00	0.055	0.2	0.06	0.0545	1.5	0.17
12-Jun-98	5.9	63.10	88.10	0.055	0.235	0.065	0.0545	1.2285	0.1245
13-Jun-98	7.6	68.05	93.05	0.055	0.235	0.065	0.0545	1.2285	0.1245
14-Jun-98	5.4	74.83	99.83	0.055	0.235	0.065	0.0545	1.2285	0.1245
15-Jun-98	4.7	64.73	89.73	0.055	0.235	0.065	0.0545	1.2285	0.1245
16-Jun-98	4.0	40.88	65.88	0.055	0.235	0.065	0.0545	1.2285	0.1245
17-Jun-98	2.9	42.32	67.32	0.055	0.235	0.065	0.0545	1.2285	0.1245
18-Jun-98	6.4	38.07	63.07	0.055	0.235	0.065	0.0545	1.2285	0.1245
19-Jun-98	9.9	24.98	49.98	0.055	0.235	0.065	0.0545	1.2285	0.1245
20-Jun-98	10.2	14.85	39.85	0.055	0.235	0.065	0.0545	1.2285	0.1245
21-Jun-98	10.8	13.83	38.83	0.055	0.235	0.065	0.0545	1.2285	0.1245
22-Jun-98	11.2	13.83	38.83	0.055	0.235	0.065	0.0545	1.2285	0.1245
23-Jun-98	6.2	13.33	38.33	0.055	0.235	0.065	0.0545	1.2285	0.1245
24-Jun-98	6.2	11.40	36.40	0.055	0.235	0.065	0.0545	1.2285	0.1245
25-Jun-98	5.5	11.40	36.40	0.055	0.235	0.065	0.0545	1.2285	0.1245
26-Jun-98	6.2	15.37	40.37	0.055	0.235	0.065	0.0545	1.2285	0.1245
27-Jun-98	4.2	18.58	43.58	0.055	0.235	0.065	0.0545	1.2285	0.1245
28-Jun-98	3.0	22.00	47.00	0.055	0.235	0.065	0.0545	1.2285	0.1245
29-Jun-98	4.2	25.60	50.60	0.055	0.235	0.065	0.0545	1.2285	0.1245
30-Jun-98	7.7	23.18	48.18	0.055	0.235	0.065	0.0545	1.2285	0.1245
1-Jul-98	11.2	14.85	39.85	0.055	0.235	0.065	0.0545	1.2285	0.1245
2-Jul-98	8.5	14.33	39.33	0.055	0.235	0.065	0.0545	1.2285	0.1245
3-Jul-98	11.0	13.33	38.33	0.055	0.235	0.065	0.0545	1.2285	0.1245
4-Jul-98	14.0	12.35	37.35	0.055	0.235	0.065	0.0545	1.2285	0.1245
5-Jul-98	10.4	11.40	36.40	0.055	0.235	0.065	0.0545	1.2285	0.1245
6-Jul-98	12.2	11.40	36.40	0.055	0.235	0.065	0.0545	1.2285	0.1245
7-Jul-98	12.2	10.92	35.92	0.055	0.235	0.065	0.0545	1.2285	0.1245
8-Jul-98	5.9	10.47	35.47	0.055	0.235	0.065	0.0545	1.2285	0.1245
9-Jul-98	4.1	9.55	34.55	0.05	0.235	0.065	0.033	1.2285	0.1245
10-Jul-98	4.3	8.68	33.68	0.04	0.27	0.065	0.0265	0.957	0.1245
11-Jul-98	4.3	7.00	32.00	0.04	0.2	0.07	0.0265	0.8445	0.08
12-Jul-98	8.2	12.35	37.35	0.04	0.2	0.06	0.0265	0.8445	0.0885
13-Jul-98	12.8	32.63	57.63	0.04	0.2	0.06	0.0265	0.8445	0.0885
14-Jul-98	10.4	45.97	70.97	0.04	0.2	0.06	0.0265	0.8445	0.0885
15-Jul-98	7.7	41.60	66.60	0.04	0.2	0.06	0.0265	0.8445	0.0885
16-Jul-98	7.1	36.00	61.00	0.04	0.2	0.06	0.0265	0.8445	0.0885

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
17-Jul-98	9.7	33.30	58.30	0.04	0.2	0.06	0.0265	0.8445	0.0885
18-Jul-98	15.4	37.37	62.37	0.04	0.2	0.06	0.0265	0.8445	0.0885
19-Jul-98	14.0	39.47	64.47	0.04	0.2	0.06	0.0265	0.8445	0.0885
20-Jul-98	13.8	37.37	62.37	0.04	0.2	0.06	0.0265	0.8445	0.0885
21-Jul-98	11.6	34.63	59.63	0.04	0.2	0.06	0.0265	0.8445	0.0885
22-Jul-98	6.2	31.97	56.97	0.04	0.2	0.06	0.0265	0.8445	0.0885
23-Jul-98	5.1	29.37	54.37	0.04	0.2	0.06	0.0265	0.8445	0.0885
24-Jul-98	3.4	25.60	50.60	0.04	0.2	0.06	0.0265	0.8445	0.0885
25-Jul-98	3.3	25.60	50.60	0.04	0.2	0.06	0.0265	0.8445	0.0885
26-Jul-98	2.8	24.38	49.38	0.04	0.2	0.06	0.0265	0.8445	0.0885
27-Jul-98	2.3	21.42	46.42	0.04	0.2	0.06	0.0265	0.8445	0.0885
28-Jul-98	2.6	18.58	43.58	0.04	0.2	0.06	0.0265	0.8445	0.0885
29-Jul-98	2.8	16.42	41.42	0.04	0.2	0.06	0.0265	0.8445	0.0885
30-Jul-98	3.3	16.42	41.42	0.04	0.2	0.06	0.0265	0.8445	0.0885
31-Jul-98	7.4	15.37	40.37	0.04	0.2	0.06	0.0265	0.8445	0.0885
1-Aug-98	11.2	12.83	37.83	0.04	0.2	0.06	0.0265	0.8445	0.0885
2-Aug-98	12.2	13.83	38.83	0.03	0.2	0.06	0.02	0.8445	0.0885
3-Aug-98	16.3	14.33	39.33	0.035	0.2	0.06	0.0195	0.8445	0.0885
4-Aug-98	15.6	14.33	39.33	0.035	0.2	0.06	0.0195	0.8445	0.0885
5-Aug-98	7.3	13.33	38.33	0.035	0.2	0.06	0.0195	0.8445	0.0885
6-Aug-98	4.5	12.35	37.35	0.035	0.13	0.05	0.0195	0.732	0.10
7-Aug-98	6.2	10.47	35.47	0.035	0.165	0.035	0.0195	0.7535	0.107
8-Aug-98	3.8	7.83	32.83	0.035	0.165	0.035	0.0195	0.7535	0.107
9-Aug-98	3.8	7.42	32.42	0.035	0.165	0.035	0.0195	0.7535	0.107
10-Aug-98	4.0	5.47	30.47	0.035	0.165	0.035	0.0195	0.7535	0.107
11-Aug-98	1.5	4.38	29.38	0.035	0.165	0.035	0.0195	0.7535	0.107
12-Aug-98	0.7	2.78	27.78	0.035	0.165	0.035	0.0195	0.7535	0.107
13-Aug-98	5.1	5.47	30.47	0.035	0.165	0.035	0.0195	0.7535	0.107
14-Aug-98	12.8	7.83	32.83	0.035	0.165	0.035	0.0195	0.7535	0.107
15-Aug-98	14.0	13.83	38.83	0.035	0.165	0.035	0.0195	0.7535	0.107
16-Aug-98	14.3	15.37	40.37	0.035	0.165	0.035	0.0195	0.7535	0.107
17-Aug-98	13.2	15.88	40.88	0.035	0.165	0.035	0.0195	0.7535	0.107
18-Aug-98	11.4	15.37	40.37	0.035	0.165	0.035	0.0195	0.7535	0.107
19-Aug-98	6.9	15.37	40.37	0.035	0.165	0.035	0.0195	0.7535	0.107
20-Aug-98	2.7	13.33	38.33	0.035	0.165	0.035	0.0195	0.7535	0.107
21-Aug-98	3.2	11.40	36.40	0.035	0.165	0.035	0.0195	0.7535	0.107
22-Aug-98	2.9	11.40	36.40	0.035	0.165	0.035	0.0195	0.7535	0.107
23-Aug-98	3.1	10.92	35.92	0.035	0.165	0.035	0.0195	0.7535	0.107
24-Aug-98	2.6	9.12	34.12	0.035	0.165	0.035	0.0195	0.7535	0.107

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
25-Aug-98	2.4	8.68	33.68	0.035	0.165	0.035	0.0195	0.7535	0.107
26-Aug-98	2.0	7.83	32.83	0.035	0.165	0.035	0.0195	0.7535	0.107
27-Aug-98	2.9	10.47	35.47	0.035	0.165	0.035	0.0195	0.7535	0.107
28-Aug-98	5.6	10.92	35.92	0.035	0.165	0.035	0.0195	0.7535	0.107
29-Aug-98	10.2	9.12	34.12	0.035	0.165	0.035	0.0195	0.7535	0.107
30-Aug-98	10.8	9.33	34.33	0.035	0.165	0.035	0.0195	0.7535	0.107
31-Aug-98	9.0	10.13	35.13	0.035	0.165	0.035	0.0195	0.7535	0.107
1-Sep-98	7.3	10.92	35.92	0.035	0.165	0.035	0.0195	0.7535	0.107
2-Sep-98	2.3	10.47	35.47	0.035	0.165	0.035	0.0195	0.7535	0.107
3-Sep-98	1.1	10.47	35.47	0.035	0.165	0.035	0.0195	0.7535	0.107
4-Sep-98	1.7	7.83	32.83	0.035	0.165	0.035	0.0195	0.7535	0.107
5-Sep-98	5.4	8.25	33.25	0.04	0.165	0.035	0.019	0.7535	0.107
6-Sep-98	7.0	6.62	31.62	0.045	0.165	0.035	0.0175	0.7535	0.107
7-Sep-98	7.9	6.62	31.62	0.045	0.165	0.035	0.0175	0.7535	0.107
8-Sep-98	9.2	10.00	35.00	0.045	0.2	0.02	0.0175	0.775	0.11
9-Sep-98	10.6	18.03	43.03	0.045	0.18	0.025	0.0175	0.7245	0.119
10-Sep-98	5.0	18.58	43.58	0.045	0.18	0.025	0.0175	0.7245	0.119
11-Sep-98	2.9	18.03	43.03	0.045	0.18	0.025	0.0175	0.7245	0.119
12-Sep-98	4.7	18.03	43.03	0.045	0.18	0.025	0.0175	0.7245	0.119
13-Sep-98	5.6	18.58	43.58	0.045	0.18	0.025	0.0175	0.7245	0.119
14-Sep-98	5.4	16.42	41.42	0.045	0.18	0.025	0.0175	0.7245	0.119
15-Sep-98	4.0	12.83	37.83	0.045	0.18	0.025	0.0175	0.7245	0.119
16-Sep-98	2.0	13.33	38.33	0.045	0.18	0.025	0.0175	0.7245	0.119
17-Sep-98	1.8	16.95	41.95	0.045	0.18	0.025	0.0175	0.7245	0.119
18-Sep-98	1.4	13.83	38.83	0.045	0.18	0.025	0.0175	0.7245	0.119
19-Sep-98	0.8	12.35	37.35	0.045	0.18	0.025	0.0175	0.7245	0.119
20-Sep-98	0.6	10.00	35.00	0.045	0.18	0.025	0.0175	0.7245	0.119
21-Sep-98	0.5	10.00	35.00	0.045	0.18	0.025	0.0175	0.7245	0.119
22-Sep-98	0.4	10.47	35.47	0.045	0.18	0.025	0.0175	0.7245	0.119
23-Sep-98	0.3	8.68	33.68	0.045	0.18	0.025	0.0175	0.7245	0.119
24-Sep-98	1.7	19.70	44.70	0.045	0.18	0.025	0.0175	0.7245	0.119
25-Sep-98	1.6	22.00	47.00	0.045	0.18	0.025	0.0175	0.7245	0.119
26-Sep-98	4.0	22.00	47.00	0.045	0.18	0.025	0.0175	0.7245	0.119
27-Sep-98	4.5	22.00	47.00	0.045	0.18	0.025	0.0175	0.7245	0.119
28-Sep-98	4.9	18.58	43.58	0.045	0.18	0.025	0.0175	0.7245	0.119
29-Sep-98	4.2	10.47	35.47	0.045	0.18	0.025	0.0175	0.7245	0.119
30-Sep-98	2.7	2.20	27.20	0.045	0.18	0.025	0.0175	0.7245	0.119
1-Oct-98	2.3	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
2-Oct-98	1.4	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
3-Oct-98	1.4	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
4-Oct-98	1.3	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
5-Oct-98	1.5	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
6-Oct-98	0.6	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
7-Oct-98	0.5	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
8-Oct-98	0.6	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
9-Oct-98	6.2	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
10-Oct-98	9.2	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
11-Oct-98	10.2	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
12-Oct-98	11.0	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
13-Oct-98	10.2	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
14-Oct-98	4.4	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
15-Oct-98	3.1	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
16-Oct-98	1.8	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
17-Oct-98	1.5	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
18-Oct-98	1.4	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
19-Oct-98	1.4	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
20-Oct-98	1.2	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
21-Oct-98	1.0	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
22-Oct-98	1.4	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
23-Oct-98	4.7	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
24-Oct-98	9.5	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
25-Oct-98	8.5	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
26-Oct-98	7.4	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
27-Oct-98	10.2	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
28-Oct-98	7.3	14.78	39.78	0.045	0.18	0.025	0.0175	0.7245	0.119
29-Oct-98	2.3	14.78	39.78	0.05	0.16	0.03	0.016	0.674	0.124
30-Oct-98	1.5	14.78	39.78	0.06	0.16	0.035	0.0155	0.666	0.142
31-Oct-98	1.0	14.78	39.78	0.06	0.16	0.035	0.0155	0.666	0.142
1-Nov-98	1.4	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
2-Nov-98	1.7	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
3-Nov-98	1.0	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
4-Nov-98	0.8	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
5-Nov-98	0.8	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
6-Nov-98	1.6	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
7-Nov-98	4.3	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
8-Nov-98	9.5	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
9-Nov-98	14.3	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
10-Nov-98	11.8	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
11-Nov-98	1.5	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
12-Nov-98	0.7	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
13-Nov-98	0.6	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
14-Nov-98	0.6	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
15-Nov-98	0.2	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
16-Nov-98	0.1	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
17-Nov-98	0.0	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
18-Nov-98	0.0	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
19-Nov-98	0.1	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
20-Nov-98	0.7	10.85	35.85	0.06	0.16	0.035	0.0155	0.666	0.142
21-Nov-98	6.2	10.85	35.85	0.07	0.16	0.035	0.015	0.666	0.142
22-Nov-98	12.0	10.85	35.85	0.055	0.16	0.035	0.016	0.666	0.142
23-Nov-98	12.6	10.85	35.85	0.055	0.16	0.04	0.016	0.658	0.16
24-Nov-98	10.8	10.85	35.85	0.055	0.16	0.035	0.016	0.671	0.1455
25-Nov-98	4.7	10.85	35.85	0.055	0.16	0.035	0.016	0.671	0.1455
26-Nov-98	4.2	10.85	35.85	0.055	0.16	0.035	0.016	0.671	0.1455
27-Nov-98	3.5	10.85	35.85	0.055	0.16	0.035	0.016	0.671	0.1455
28-Nov-98	1.5	10.85	35.85	0.055	0.16	0.035	0.016	0.671	0.1455
29-Nov-98	0.7	10.85	35.85	0.055	0.16	0.035	0.016	0.671	0.1455
30-Nov-98	0.6	10.85	35.85	0.055	0.16	0.035	0.016	0.671	0.1455
1-Dec-98	0.0	12.88	37.88	0.055	0.16	0.035	0.016	0.671	0.1455
2-Dec-98	0.0	12.88	37.88	0.055	0.16	0.035	0.016	0.671	0.1455
3-Dec-98	0.0	12.88	37.88	0.055	0.16	0.035	0.016	0.671	0.1455
4-Dec-98	0.9	12.88	37.88	0.055	0.16	0.035	0.016	0.671	0.1455
5-Dec-98	2.4	12.88	37.88	0.055	0.16	0.035	0.016	0.671	0.1455
6-Dec-98	4.2	12.88	37.88	0.055	0.16	0.035	0.016	0.671	0.1455
7-Dec-98	4.7	12.88	37.88	0.055	0.16	0.035	0.016	0.671	0.1455
8-Dec-98	4.7	12.88	37.88	0.055	0.16	0.035	0.016	0.671	0.1455
9-Dec-98	3.6	12.88	37.88	0.055	0.16	0.035	0.016	0.671	0.1455
10-Dec-98	2.7	12.88	37.88	0.055	0.16	0.035	0.016	0.671	0.1455
11-Dec-98	1.3	12.88	37.88	0.055	0.16	0.035	0.016	0.671	0.1455
12-Dec-98	0.4	12.88	37.88	0.055	0.16	0.035	0.016	0.671	0.1455
13-Dec-98	0.4	12.88	37.88	0.055	0.16	0.03	0.016	0.684	0.131
14-Dec-98	0.1	12.88	37.88	0.04	0.205	0.055	0.017	0.77	0.226
15-Dec-98	0.0	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
16-Dec-98	0.0	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
17-Dec-98	0.4	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
18-Dec-98	3.9	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
19-Dec-98	5.4	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
20-Dec-98	1.7	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
21-Dec-98	0.6	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
22-Dec-98	0.3	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
23-Dec-98	0.0	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
24-Dec-98	0.0	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
25-Dec-98	0.0	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
26-Dec-98	0.0	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
27-Dec-98	0.0	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
28-Dec-98	0.0	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
29-Dec-98	0.0	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
30-Dec-98	0.0	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
31-Dec-98	0.0	12.88	37.88	0.52	0.205	0.055	0.077	0.77	0.226
1-Jan-99	0.0	bypassing		0.52	0.205	0.055	0.077	0.77	0.226
2-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
3-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
4-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
5-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
6-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
7-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
8-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
9-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
10-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
11-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
12-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
13-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
14-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
15-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
16-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
17-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
18-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
19-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
20-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
21-Jan-99	0.0	5.00	30.00	0.52	0.205	0.055	0.077	0.77	0.226
22-Jan-99	0.0	5.00	30.00	0.52	0.25	0.08	0.077	0.856	0.321
23-Jan-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
24-Jan-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
25-Jan-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
26-Jan-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
27-Jan-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
28-Jan-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
29-Jan-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
30-Jan-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
31-Jan-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
1-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
2-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
3-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
4-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
5-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
6-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
7-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
8-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
9-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
10-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
11-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
12-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
13-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
14-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
15-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
16-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
17-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
18-Feb-99	0.0	5.00	30.00	0.52	0.32	0.125	0.077	0.921	0.366
19-Feb-99	0.0	5.00	30.00	0.52	0.39	0.17	0.077	0.986	0.411
20-Feb-99	0.0	5.00	30.00	0.52	0.41	0.155	0.077	0.9855	0.434
21-Feb-99	0.0	5.00	30.00	0.52	0.41	0.155	0.077	0.9855	0.434
22-Feb-99	0.0	5.00	30.00	0.52	0.41	0.155	0.077	0.9855	0.434
23-Feb-99	0.0	5.00	30.00	0.52	0.41	0.155	0.077	0.9855	0.434
24-Feb-99	0.0	5.00	30.00	0.52	0.41	0.155	0.077	0.9855	0.434
25-Feb-99	0.0	5.00	30.00	0.52	0.41	0.155	0.077	0.9855	0.434
26-Feb-99	0.0	5.00	30.00	0.52	0.41	0.155	0.077	0.9855	0.434
27-Feb-99	0.0	5.00	30.00	0.52	0.41	0.155	0.077	0.9855	0.434
28-Feb-99	0.0	5.00	30.00	0.52	0.41	0.155	0.077	0.9855	0.434
1-Mar-99	0.0	5.00	30.00	0.52	0.41	0.155	0.077	0.9855	0.434
2-Mar-99	0.0	0.00	25.00	0.52	0.41	0.155	0.077	0.9855	0.434
3-Mar-99	0.0	0.00	25.00	0.52	0.41	0.155	0.077	0.9855	0.434
4-Mar-99	0.0	0.00	25.00	0.52	0.41	0.155	0.077	0.9855	0.434
5-Mar-99	0.0	0.00	25.00	1	0.43	0.14	0.137	0.985	0.457
6-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
7-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
8-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
9-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
10-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
11-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
12-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
13-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
14-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
15-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
16-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
17-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
18-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
19-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
20-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
21-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
22-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
23-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
24-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
25-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
26-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
27-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
28-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
29-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
30-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
31-Mar-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
1-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
2-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
3-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
4-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
5-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
6-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
7-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
8-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
9-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
10-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
11-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
12-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
13-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
14-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
15-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
16-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
17-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
18-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
19-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
20-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
21-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
22-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
23-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
24-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
25-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
26-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
27-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
28-Apr-99	0.0	0.00	25.00	0.555	0.335	0.085	0.0865	0.64	0.27
29-Apr-99	0.0	0.00	25.00	0.555	0.24	0.085	0.0865	0.64	0.27
30-Apr-99	0.0	0.00	25.00	0.555	0.45	0.085	0.0865	0.64	0.27
1-May-99	0.8	0.00	25.00	0.555	0.45	0.085	0.0865	0.64	0.27
2-May-99	4.4	30.66	55.66	0.555	0.45	0.085	0.0865	0.64	0.27
3-May-99	4.4	49.71	74.71	0.555	0.45	0.085	0.0865	0.64	0.27
4-May-99	4.4	77.42	102.42	0.555	0.45	0.085	0.0865	0.64	0.27
5-May-99	4.4	110.54	135.54	0.555	0.45	0.085	0.0865	0.64	0.27
6-May-99	5.6	118.36	143.36	0.555	0.45	0.085	0.0865	0.64	0.27
7-May-99	3.2	112.48	137.48	0.555	0.45	0.085	0.0865	0.64	0.27
8-May-99	7.0	97.24	122.24	0.555	0.45	0.085	0.0865	0.64	0.27
9-May-99	2.4	85.37	110.37	0.555	0.45	0.085	0.0865	0.64	0.27
10-May-99	3.0	75.69	100.69	0.555	0.45	0.085	0.0865	0.64	0.27
11-May-99	3.6	65.56	90.56	0.555	0.45	0.085	0.0865	0.64	0.27
12-May-99	3.0	55.10	80.10	0.555	0.45	0.085	0.0865	0.64	0.27
13-May-99	2.6	50.47	75.47	0.555	0.45	0.085	0.0865	0.64	0.27
14-May-99	3.4	43.77	68.77	0.555	0.45	0.085	0.0865	0.64	0.27
15-May-99	2.5	39.47	64.47	0.555	0.66	0.03	0.0865	0.64	0.27
16-May-99	1.7	35.31	60.31	0.555	0.42	0.025	0.0865	0.64	0.27
17-May-99	0.8	31.31	56.31	0.555	0.42	0.025	0.0865	0.64	0.27
18-May-99	0.9	28.73	53.73	0.555	0.42	0.025	0.0865	0.64	0.27
19-May-99	1.0	26.22	51.22	0.555	0.42	0.025	0.0865	0.64	0.27
20-May-99	0.8	22.59	47.59	0.555	0.42	0.025	0.0865	0.64	0.27
21-May-99	1.2	22.01	47.01	0.555	0.42	0.025	0.0865	0.64	0.27
22-May-99	2.0	21.42	46.42	0.555	0.42	0.025	0.0865	0.64	0.27
23-May-99	0.9	21.42	46.42	0.555	0.42	0.025	0.0865	0.64	0.27
24-May-99	0.7	22.01	47.01	0.555	0.42	0.025	0.0865	0.64	0.27

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
25-May-99	1.3	19.15	44.15	0.555	0.42	0.025	0.0865	0.64	0.27
26-May-99	1.4	19.71	44.71	0.555	0.42	0.025	0.0865	0.64	0.27
27-May-99	0.6	22.01	47.01	0.555	0.42	0.025	0.0865	0.64	0.27
28-May-99	0.2	19.71	44.71	0.555	0.42	0.025	0.0865	0.64	0.27
29-May-99	0.7	14.34	39.34	0.555	0.42	0.025	0.0865	0.64	0.27
30-May-99	0.2	18.04	43.04	0.555	0.42	0.025	0.0865	0.64	0.27
31-May-99	0.1	18.04	43.04	0.555	0.42	0.025	0.0865	0.64	0.27
1-Jun-99	0.1	17.49	42.49	0.555	0.42	0.025	0.0865	0.64	0.27
2-Jun-99	0.1	16.42	41.42	0.555	0.42	0.025	0.0865	0.64	0.27
3-Jun-99	0.0	14.85	39.85	0.555	0.42	0.025	0.0865	0.64	0.27
4-Jun-99	0.2	13.33	38.33	0.555	0.42	0.025	0.0865	0.64	0.27
5-Jun-99	0.4	13.83	38.83	0.555	0.42	0.025	0.0865	0.64	0.27
6-Jun-99	0.0	22.01	47.01	0.555	0.42	0.025	0.0865	0.64	0.27
7-Jun-99	0.0	19.71	44.71	0.555	0.42	0.025	0.0865	0.64	0.27
8-Jun-99	0.0	19.71	44.71	0.555	0.42	0.025	0.0865	0.64	0.27
9-Jun-99	0.0	21.42	46.42	0.555	0.42	0.025	0.0865	0.64	0.27
10-Jun-99	0.0	20.27	45.27	0.555	0.42	0.025	0.0865	0.64	0.27
11-Jun-99	0.0	23.18	48.18	0.555	0.42	0.025	0.0865	0.64	0.27
12-Jun-99	0.0	20.27	45.27	0.555	0.18	0.025	0.0865	0.30	0.27
13-Jun-99	0.9	19.71	44.71	0.555	0.165	0.02	0.0865	0.263	0.083
14-Jun-99	1.2	19.71	44.71	0.11	0.165	0.025	0.036	0.263	0.07
15-Jun-99	1.5	18.04	43.04	0.165	0.165	0.025	0.043	0.263	0.074
16-Jun-99	5.1	18.04	43.04	0.165	0.165	0.025	0.043	0.263	0.074
17-Jun-99	1.5	18.04	43.04	0.165	0.165	0.025	0.043	0.263	0.074
18-Jun-99	0.6	17.49	42.49	0.165	0.165	0.025	0.043	0.263	0.074
19-Jun-99	0.1	15.89	40.89	0.165	0.165	0.025	0.043	0.263	0.074
20-Jun-99	0.0	13.33	38.33	0.165	0.165	0.025	0.043	0.263	0.074
21-Jun-99	0.0	11.39	36.39	0.165	0.165	0.025	0.043	0.263	0.074
22-Jun-99	0.0	11.39	36.39	0.165	0.165	0.025	0.043	0.263	0.074
23-Jun-99	0.0	12.84	37.84	0.165	0.165	0.025	0.043	0.263	0.074
24-Jun-99	0.3	14.34	39.34	0.165	0.165	0.025	0.043	0.263	0.074
25-Jun-99	0.4	22.01	47.01	0.165	0.165	0.025	0.043	0.263	0.074
26-Jun-99	0.0	20.85	45.85	0.165	0.165	0.025	0.043	0.263	0.074
27-Jun-99	0.0	20.27	45.27	0.165	0.165	0.025	0.043	0.263	0.074
28-Jun-99	0.0	19.15	44.15	0.165	0.165	0.025	0.043	0.263	0.074
29-Jun-99	0.0	18.59	43.59	0.165	0.165	0.025	0.043	0.263	0.074
30-Jun-99	0.0	19.71	44.71	0.165	0.165	0.025	0.043	0.263	0.074
1-Jul-99	0.0	18.59	43.59	0.165	0.165	0.025	0.043	0.263	0.074
2-Jul-99	0.0	16.95	41.95	0.165	0.165	0.025	0.043	0.263	0.074

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
3-Jul-99	0.0	16.42	41.42	0.165	0.165	0.025	0.043	0.263	0.074
4-Jul-99	0.0	15.37	40.37	0.165	0.165	0.025	0.043	0.263	0.074
5-Jul-99	0.0	14.34	39.34	0.165	0.165	0.025	0.043	0.263	0.074
6-Jul-99	0.0	11.87	36.87	0.165	0.165	0.025	0.043	0.263	0.074
7-Jul-99	0.0	11.39	36.39	0.165	0.165	0.025	0.043	0.263	0.074
8-Jul-99	0.0	10.92	35.92	0.165	0.165	0.025	0.043	0.263	0.074
9-Jul-99	0.0	11.39	36.39	0.165	0.165	0.025	0.043	0.263	0.074
10-Jul-99	0.0	11.39	36.39	0.165	0.165	0.025	0.043	0.263	0.074
11-Jul-99	0.0	12.35	37.35	0.165	0.165	0.025	0.043	0.263	0.074
12-Jul-99	0.0	11.87	36.87	0.165	0.15	0.03	0.043	0.229	0.065
13-Jul-99	0.0	7.83	32.83	0.165	0.195	0.025	0.043	0.216	0.066
14-Jul-99	0.0	7.01	32.01	0.165	0.195	0.025	0.043	0.216	0.066
15-Jul-99	0.0	6.22	31.22	0.165	0.195	0.025	0.043	0.216	0.066
16-Jul-99	0.0	6.61	31.61	0.165	0.195	0.025	0.043	0.216	0.066
17-Jul-99	0.0	6.22	31.22	0.165	0.195	0.025	0.043	0.216	0.066
18-Jul-99	0.0	3.71	28.71	0.165	0.195	0.025	0.043	0.216	0.066
19-Jul-99	0.0	3.71	28.71	0.165	0.195	0.025	0.043	0.216	0.066
20-Jul-99	0.0	3.39	28.39	0.165	0.195	0.025	0.043	0.216	0.066
21-Jul-99	0.0	2.48	27.48	0.165	0.195	0.025	0.043	0.216	0.066
22-Jul-99	0.0	2.78	27.78	0.165	0.195	0.025	0.043	0.216	0.066
23-Jul-99	0.0	1.68	26.68	0.165	0.195	0.025	0.043	0.216	0.066
24-Jul-99	0.0	2.20	27.20	0.165	0.195	0.025	0.043	0.216	0.066
25-Jul-99	0.0	2.20	27.20	0.165	0.195	0.025	0.043	0.216	0.066
26-Jul-99	0.0	2.20	27.20	0.165	0.195	0.025	0.043	0.216	0.066
27-Jul-99	0.0	14.85	39.85	0.165	0.195	0.025	0.043	0.216	0.066
28-Jul-99	0.0	10.46	35.46	0.165	0.195	0.025	0.043	0.216	0.066
29-Jul-99	0.0	10.01	35.01	0.165	0.195	0.025	0.043	0.216	0.066
30-Jul-99	0.0	8.25	33.25	0.165	0.195	0.025	0.043	0.216	0.066
31-Jul-99	0.0	10.92	35.92	0.165	0.195	0.025	0.043	0.216	0.066
1-Aug-99	0.0	13.33	38.33	0.165	0.195	0.025	0.043	0.216	0.066
2-Aug-99	0.0	13.33	38.33	0.165	0.195	0.025	0.043	0.216	0.066
3-Aug-99	0.0	12.35	37.35	0.165	0.195	0.025	0.043	0.216	0.066
4-Aug-99	0.0	15.37	40.37	0.165	0.195	0.025	0.043	0.216	0.066
5-Aug-99	0.0	15.37	40.37	0.165	0.195	0.025	0.043	0.216	0.066
6-Aug-99	0.0	13.83	38.83	0.165	0.195	0.025	0.043	0.216	0.066
7-Aug-99	0.0	12.35	37.35	0.165	0.195	0.025	0.043	0.216	0.066
8-Aug-99	0.0	11.39	36.39	0.165	0.24	0.02	0.043	0.203	0.067
9-Aug-99	0.0	21.42	46.42	0.165	0.23	0.03	0.043	0.2395	0.0715
10-Aug-99	0.0	23.78	48.78	0.165	0.23	0.03	0.043	0.2395	0.0715

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
10-Aug-99	0.0	21.42	46.42	0.165	0.23	0.03	0.043	0.2395	0.0715
11-Aug-99	0.0	21.42	46.42	0.165	0.23	0.03	0.043	0.2395	0.0715
12-Aug-99	0.0	20.27	45.27	0.165	0.23	0.03	0.043	0.2395	0.0715
13-Aug-99	0.0	20.85	45.85	0.165	0.23	0.03	0.043	0.2395	0.0715
14-Aug-99	1.3	18.04	43.04	0.165	0.23	0.03	0.043	0.2395	0.0715
15-Aug-99	0.2	21.42	46.42	0.165	0.23	0.03	0.043	0.2395	0.0715
16-Aug-99	0.0	20.27	45.27	0.165	0.23	0.03	0.043	0.2395	0.0715
17-Aug-99	0.0	18.59	43.59	0.165	0.23	0.03	0.043	0.2395	0.0715
18-Aug-99	0.0	16.95	41.95	0.165	0.23	0.03	0.043	0.2395	0.0715
19-Aug-99	0.0	16.95	41.95	0.165	0.23	0.03	0.043	0.2395	0.0715
20-Aug-99	0.0	15.37	40.37	0.165	0.23	0.03	0.043	0.2395	0.0715
21-Aug-99	0.0	13.33	38.33	0.165	0.23	0.03	0.043	0.2395	0.0715
22-Aug-99	0.0	13.83	38.83	0.165	0.23	0.03	0.043	0.2395	0.0715
23-Aug-99	1.7	11.39	36.39	0.22	0.23	0.03	0.05	0.2395	0.0715
24-Aug-99	0.7	20.85	45.85	0.14	0.23	0.03	0.0365	0.2395	0.0715
25-Aug-99	0.1	19.15	44.15	0.14	0.23	0.03	0.0365	0.2395	0.0715
26-Aug-99	0.5	18.04	43.04	0.14	0.23	0.03	0.0365	0.2395	0.0715
27-Aug-99	0.6	24.38	49.38	0.14	0.23	0.03	0.0365	0.2395	0.0715
28-Aug-99	0.2	19.71	44.71	0.14	0.23	0.03	0.0365	0.2395	0.0715
29-Aug-99	0.0	14.34	39.34	0.14	0.23	0.03	0.0365	0.2395	0.0715
30-Aug-99	0.0	12.35	37.35	0.14	0.23	0.03	0.0365	0.2395	0.0715
31-Aug-99	0.0	15.37	40.37	0.14	0.23	0.03	0.0365	0.2395	0.0715
1-Sep-99	3.3	12.35	37.35	0.14	0.23	0.03	0.0365	0.2395	0.0715
2-Sep-99	0.8	33.96	58.96	0.14	0.23	0.03	0.0365	0.2395	0.0715
3-Sep-99	1.0	36.00	61.00	0.14	0.23	0.03	0.0365	0.2395	0.0715
4-Sep-99	0.6	36.00	61.00	0.14	0.23	0.03	0.0365	0.2395	0.0715
5-Sep-99	0.8	35.31	60.31	0.14	0.23	0.03	0.0365	0.2395	0.0715
6-Sep-99	0.4	34.64	59.64	0.14	0.23	0.03	0.0365	0.2395	0.0715
7-Sep-99	0.4	29.37	54.37	0.14	0.23	0.03	0.0365	0.2395	0.0715
8-Sep-99	2.7	27.46	52.46	0.14	0.23	0.03	0.0365	0.2395	0.0715
9-Sep-99	1.2	26.22	51.22	0.14	0.23	0.03	0.0365	0.2395	0.0715
10-Sep-99	0.8	24.99	49.99	0.14	0.22	0.04	0.0365	0.276	0.076
11-Sep-99	0.8	23.18	48.18	0.14	0.215	0.03	0.0365	0.28	0.0855
12-Sep-99	0.7	21.42	46.42	0.14	0.215	0.03	0.0365	0.28	0.0855
13-Sep-99	0.8	21.42	46.42	0.14	0.215	0.03	0.0365	0.28	0.0855
14-Sep-99	0.7	20.85	45.85	0.14	0.215	0.03	0.0365	0.28	0.0855
15-Sep-99	0.7	19.15	44.15	0.14	0.215	0.03	0.0365	0.28	0.0855
16-Sep-99	0.5	16.95	41.95	0.14	0.215	0.03	0.0365	0.28	0.0855
17-Sep-99	0.5	15.37	40.37	0.14	0.215	0.03	0.0365	0.28	0.0855

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
18-Sep-99	0.6	13.83	38.83	0.14	0.215	0.03	0.0365	0.28	0.0855
19-Sep-99	0.5	15.89	40.89	0.14	0.215	0.03	0.0365	0.28	0.0855
20-Sep-99	0.4	16.42	41.42	0.14	0.215	0.03	0.0365	0.28	0.0855
21-Sep-99	0.2	15.89	40.89	0.14	0.215	0.03	0.0365	0.28	0.0855
22-Sep-99	0.2	14.34	39.34	0.14	0.215	0.03	0.0365	0.28	0.0855
23-Sep-99	0.2	11.87	36.87	0.14	0.215	0.03	0.0365	0.28	0.0855
24-Sep-99	0.8	10.92	35.92	0.14	0.215	0.03	0.0365	0.28	0.0855
25-Sep-99	0.2	14.85	39.85	0.14	0.215	0.03	0.0365	0.28	0.0855
26-Sep-99	0.1	16.95	41.95	0.14	0.215	0.03	0.0365	0.28	0.0855
27-Sep-99	0.1	14.85	39.85	0.14	0.215	0.03	0.0365	0.28	0.0855
28-Sep-99	0.1	14.34	39.34	0.06	0.215	0.03	0.023	0.28	0.0855
29-Sep-99	0.0	14.85	39.85	0.065	0.215	0.03	0.026	0.28	0.0855
30-Sep-99	1.3	12.84	37.84	0.065	0.215	0.03	0.026	0.28	0.0855
1-Oct-99	0.0	12.35	37.35	0.065	0.215	0.03	0.026	0.28	0.0855
2-Oct-99	0.0	10.92	35.92	0.065	0.21	0.02	0.026	0.284	0.095
3-Oct-99	0.001	11.39	36.39	0.065	0.19	0.035	0.026	0.2595	0.0875
4-Oct-99	0.0004	10.92	35.92	0.065	0.19	0.035	0.026	0.2595	0.0875
5-Oct-99	0.0	10.01	35.01	0.065	0.19	0.035	0.026	0.2595	0.0875
6-Oct-99	0.0	9.11	34.11	0.065	0.19	0.035	0.026	0.2595	0.0875
7-Oct-99	0.0	8.68	33.68	0.065	0.19	0.035	0.026	0.2595	0.0875
8-Oct-99	0.0	8.68	33.68	0.065	0.19	0.035	0.026	0.2595	0.0875
9-Oct-99	0.0	10.01	35.01	0.065	0.19	0.035	0.026	0.2595	0.0875
10-Oct-99	0.0	10.01	35.01	0.065	0.19	0.035	0.026	0.2595	0.0875
11-Oct-99	0.0	10.01	35.01	0.065	0.19	0.035	0.026	0.2595	0.0875
12-Oct-99	0.0	8.68	33.68	0.065	0.19	0.035	0.026	0.2595	0.0875
13-Oct-99	0.0	9.56	34.56	0.065	0.19	0.035	0.026	0.2595	0.0875
14-Oct-99	0.0	9.11	34.11	0.065	0.19	0.035	0.026	0.2595	0.0875
15-Oct-99	0.001	11.39	36.39	0.065	0.19	0.035	0.026	0.2595	0.0875
16-Oct-99	0.001	11.87	36.87	0.065	0.19	0.035	0.026	0.2595	0.0875
17-Oct-99	0.0002	11.39	36.39	0.07	0.19	0.035	0.029	0.2595	0.0875
18-Oct-99	0.0	12.35	37.35	0.265	0.19	0.035	0.048	0.2595	0.0875
19-Oct-99	0.0	11.39	36.39	0.265	0.19	0.035	0.048	0.2595	0.0875
20-Oct-99	0.0	12.35	37.35	0.265	0.19	0.035	0.048	0.2595	0.0875
21-Oct-99	0.0	14.34	39.34	0.265	0.19	0.035	0.048	0.2595	0.0875
22-Oct-99	0.0	15.37	40.37	0.265	0.19	0.035	0.048	0.2595	0.0875
23-Oct-99	0.0	14.34	39.34	0.265	0.19	0.035	0.048	0.2595	0.0875
24-Oct-99	0.0	13.83	38.83	0.265	0.19	0.035	0.048	0.2595	0.0875
25-Oct-99	0.0	12.84	37.84	0.265	0.19	0.035	0.048	0.2595	0.0875
26-Oct-99	0.0	12.84	37.84	0.265	0.19	0.035	0.048	0.2595	0.0875

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
27-Oct-99	0.0	12.84	37.84	0.265	0.19	0.035	0.048	0.2595	0.0875
28-Oct-99	0.0	12.35	37.35	0.265	0.19	0.035	0.048	0.2595	0.0875
29-Oct-99	0.0	11.87	36.87	0.265	0.19	0.035	0.048	0.2595	0.0875
30-Oct-99	0.0	11.39	36.39	0.265	0.19	0.035	0.048	0.2595	0.0875
31-Oct-99	0.0	11.39	36.39	0.265	0.19	0.035	0.048	0.2595	0.0875
1-Nov-99	0.0	11.39	36.39	0.265	0.19	0.035	0.048	0.2595	0.0875
2-Nov-99	0.0	9.75	34.75	0.265	0.19	0.035	0.048	0.2595	0.0875
3-Nov-99	0.0	9.75	34.75	0.265	0.19	0.035	0.048	0.2595	0.0875
4-Nov-99	0.0	9.75	34.75	0.265	0.19	0.035	0.048	0.2595	0.0875
5-Nov-99	0.0	9.75	34.75	0.265	0.19	0.035	0.048	0.2595	0.0875
6-Nov-99	0.0	9.75	34.75	0.265	0.19	0.035	0.048	0.2595	0.0875
7-Nov-99	0.0	9.75	34.75	0.265	0.19	0.035	0.048	0.2595	0.0875
8-Nov-99	0.0	9.75	34.75	0.265	0.19	0.035	0.048	0.2595	0.0875
9-Nov-99	0.0	9.75	34.75	0.265	0.19	0.035	0.048	0.2595	0.0875
10-Nov-99	0.0	9.75	34.75	0.265	0.19	0.035	0.048	0.2595	0.0875
11-Nov-99	0.0	9.75	34.75	0.265	0.19	0.035	0.048	0.2595	0.0875
12-Nov-99	0.0	9.75	34.75	0.265	0.19	0.035	0.048	0.2595	0.0875
13-Nov-99	0.0	9.75	34.75	0.265	0.19	0.035	0.048	0.2595	0.0875
14-Nov-99	0.0	9.75	34.75	0.265	0.19	0.035	0.048	0.2595	0.0875
15-Nov-99	0.0	9.75	34.75	0.265	0.19	0.035	0.048	0.2595	0.0875
16-Nov-99	0.0	9.75	34.75	0.265	0.17	0.05	0.048	0.235	0.08
17-Nov-99	0.0	9.75	34.75	0.265	0.18	0.04	0.048	0.2385	0.081
18-Nov-99	0.0	9.75	34.75	0.265	0.18	0.04	0.048	0.2385	0.081
19-Nov-99	0.0	9.75	34.75	0.265	0.18	0.04	0.048	0.2385	0.081
20-Nov-99	0.0	9.75	34.75	0.265	0.18	0.04	0.048	0.2385	0.081
21-Nov-99	0.0	9.75	34.75	0.265	0.18	0.04	0.048	0.2385	0.081
22-Nov-99	0.0	9.75	34.75	0.265	0.18	0.04	0.048	0.2385	0.081
23-Nov-99	0.0	9.75	34.75	0.265	0.18	0.04	0.048	0.2385	0.081
24-Nov-99	0.0	9.75	34.75	0.265	0.18	0.04	0.048	0.2385	0.081
25-Nov-99	0.0	9.75	34.75	0.265	0.18	0.04	0.048	0.2385	0.081
26-Nov-99	0.0	9.75	34.75	0.265	0.18	0.04	0.048	0.2385	0.081
27-Nov-99	0.0	9.75	34.75	0.265	0.18	0.04	0.048	0.2385	0.081
28-Nov-99	0.0	9.75	34.75	0.265	0.18	0.04	0.048	0.2385	0.081
29-Nov-99	0.0	9.75	34.75	0.265	0.18	0.04	0.048	0.2385	0.081
30-Nov-99	0.0	9.75	34.75	0.265	0.18	0.04	0.048	0.2385	0.081
1-Dec-99	0.0	9.75	34.75	0.265	0.18	0.04	0.048	0.2385	0.081
2-Dec-99	0.0	3.80	28.80	0.265	0.18	0.04	0.048	0.2385	0.081
3-Dec-99	0.0	3.80	28.80	0.265	0.18	0.04	0.048	0.2385	0.081
4-Dec-99	0.0	3.80	28.80	0.265	0.18	0.04	0.048	0.2385	0.081

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
5-Dec-99	0.0	3.80	28.80	0.265	0.18	0.04	0.048	0.2385	0.081
6-Dec-99	0.0	3.80	28.80	0.265	0.19	0.03	0.048	0.242	0.082
7-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
8-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
9-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
10-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
11-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
12-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
13-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
14-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
15-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
16-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
17-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
18-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
19-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
20-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
21-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
22-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
23-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
24-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
25-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
26-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
27-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
28-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
29-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
30-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
31-Dec-99	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
1-Jan-00	0.0	3.80	28.80	0.265	0.22	0.035	0.048	0.2815	0.0925
2-Jan-00	0.0	1.90	26.90	0.265	0.22	0.035	0.048	0.2815	0.0925
3-Jan-00	0.0	1.90	26.90	0.265	0.25	0.04	0.048	0.321	0.103
4-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
5-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
6-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
7-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
8-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
9-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
10-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
11-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
12-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
13-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
14-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
15-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
16-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
17-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
18-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
19-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
20-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
21-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
22-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
23-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
24-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
25-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
26-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
27-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
28-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
29-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
30-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
31-Jan-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
1-Feb-00	0.0	1.90	26.90	0.265	0.4	0.1	0.048	0.3725	0.135
2-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
3-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
4-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
5-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
6-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
7-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
8-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
9-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
10-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
11-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
12-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
13-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
14-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
15-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
16-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
17-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
18-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
19-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
20-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
21-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
22-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
23-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
24-Feb-00	0.0	0.00	25.00	0.265	0.4	0.1	0.048	0.3725	0.135
25-Feb-00	0.0	0.00	25.00	0.265	0.55	0.16	0.048	0.424	0.167
26-Feb-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
27-Feb-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
28-Feb-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
29-Feb-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
1-Mar-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
2-Mar-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
3-Mar-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
4-Mar-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
5-Mar-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
6-Mar-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
7-Mar-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
8-Mar-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
9-Mar-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
10-Mar-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
11-Mar-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
12-Mar-00	0.0	0.00	25.00	0.265	0.6	0.17	0.048	0.4	0.174
13-Mar-00	0.0	0.00	25.00	0.265	0.65	0.18	0.048	0.376	0.181
14-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
15-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
16-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
17-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
18-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
19-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
20-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
21-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
22-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
23-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
24-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
25-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
26-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
27-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
28-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
29-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
30-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
31-Mar-00	0.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
1-Apr-00	10.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
2-Apr-00	10.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
3-Apr-00	10.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
4-Apr-00	10.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
5-Apr-00	10.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
6-Apr-00	10.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
7-Apr-00	10.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
8-Apr-00	10.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
9-Apr-00	10.0	0.00	25.00	0.265	0.435	0.13	0.048	0.252	0.1765
10-Apr-00	10.0	0.00	25.00	0.265	0.435	0.08	0.048	0.252	0.172
11-Apr-00	10.0	0.00	25.00	0.265	0.435	0.08	0.048	0.252	0.1215
12-Apr-00	10.0	0.00	25.00	0.265	0.435	0.08	0.048	0.252	0.1215
13-Apr-00	10.0	0.00	25.00	0.265	0.435	0.08	0.048	0.252	0.1215
14-Apr-00	10.0	0.00	25.00	0.265	0.435	0.08	0.048	0.252	0.1215
15-Apr-00	10.0	0.00	25.00	0.265	0.435	0.08	0.048	0.252	0.1215
16-Apr-00	10.0	0.00	25.00	0.265	0.435	0.08	0.048	0.252	0.1215
17-Apr-00	10.0	0.00	25.00	0.265	0.435	0.08	0.048	0.252	0.1215
18-Apr-00	10.0	0.00	25.00	0.265	0.435	0.08	0.048	0.252	0.1215
19-Apr-00	10.0	0.00	25.00	0.265	0.435	0.08	0.048	0.252	0.1215
20-Apr-00	10.0	0.00	25.00	0.265	0.435	0.08	0.048	0.252	0.1215
21-Apr-00	10.0	0.00	25.00	0.265	0.435	0.08	0.048	0.252	0.1215
22-Apr-00	10.0	0.00	25.00	0.46	0.435	0.08	0.067	0.252	0.1215
23-Apr-00	10.0	0.00	25.00	0.4	0.435	0.08	0.0745	0.252	0.1215
24-Apr-00	10.0	0.00	25.00	0.4	0.435	0.08	0.0745	0.252	0.1215
25-Apr-00	10.0	0.00	25.00	0.4	0.435	0.08	0.0745	0.252	0.1215
26-Apr-00	10.0	0.00	25.00	0.4	0.435	0.08	0.0745	0.252	0.1215
27-Apr-00	10.0	0.00	25.00	0.4	0.435	0.08	0.0745	0.252	0.1215
28-Apr-00	10.0	0.00	25.00	0.4	0.435	0.08	0.0745	0.252	0.1215
29-Apr-00	10.0	0.00	25.00	0.4	0.435	0.08	0.0745	0.252	0.1215
30-Apr-00	10.0	0.00	25.00	0.4	0.435	0.08	0.0745	0.252	0.1215
1-May-00	2.9	0.00	25.00	0.4	0.435	0.08	0.0745	0.252	0.1215
2-May-00	2.9	48.68	73.68	0.34	0.22	0.08	0.082	0.128	0.1215
3-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
4-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
5-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
6-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
7-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
8-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
9-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
10-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
11-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
12-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
13-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
14-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
15-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
16-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
17-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
18-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
19-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
20-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
21-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
22-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
23-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
24-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
25-May-00	2.9	48.68	73.68	0.82	0.3	0.08	0.1	0.1495	0.1215
26-May-00	2.9	48.68	73.68	0.82	0.38	0.08	0.1	0.171	0.071
27-May-00	2.9	48.68	73.68	0.82	0.335	0.055	0.1	0.1675	0.0735
28-May-00	2.9	48.68	73.68	0.82	0.335	0.055	0.1	0.1675	0.0735
29-May-00	2.9	48.68	73.68	0.82	0.335	0.055	0.1	0.1675	0.0735
30-May-00	2.9	48.68	73.68	0.82	0.335	0.055	0.1	0.1675	0.0735
31-May-00	2.9	48.68	73.68	0.82	0.335	0.055	0.1	0.1675	0.0735
1-Jun-00	0.9	48.68	73.68	0.82	0.335	0.055	0.1	0.1675	0.0735
2-Jun-00	0.9	32.67	57.67	0.82	0.335	0.055	0.1	0.1675	0.0735
3-Jun-00	0.9	32.67	57.67	0.82	0.335	0.055	0.1	0.1675	0.0735
4-Jun-00	0.9	32.67	57.67	0.82	0.335	0.055	0.1	0.1675	0.0735
5-Jun-00	0.9	32.67	57.67	0.82	0.29	0.03	0.1	0.164	0.0735
6-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
7-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
8-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
9-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
10-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
11-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
12-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
13-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
14-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
15-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
16-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
17-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
18-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
19-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
20-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
21-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
22-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
23-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
24-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
25-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
26-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
27-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
28-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
29-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
30-Jun-00	0.9	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
1-Jul-00	0.0	32.67	57.67	0.82	0.255	0.025	0.1	0.177	0.0735
2-Jul-00	0.0	10.92	35.92	0.82	0.255	0.025	0.1	0.177	0.0735
3-Jul-00	0.0	10.92	35.92	0.82	0.22	0.025	0.1	0.19	0.0735
4-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.076
5-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
6-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
7-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
8-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
9-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
10-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
11-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
12-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
13-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
14-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
15-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
16-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
17-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
18-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
19-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
20-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
21-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
22-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
23-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
24-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
25-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
26-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
27-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
28-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
29-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
30-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
31-Jul-00	0.0	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
1-Aug-00	1.6	10.92	35.92	0.82	0.23	0.02	0.1	0.1735	0.064
2-Aug-00	1.6	26.58	51.58	0.82	0.23	0.02	0.1	0.1735	0.064
3-Aug-00	1.6	26.58	51.58	0.82	0.23	0.02	0.1	0.1735	0.064
4-Aug-00	1.6	26.58	51.58	0.82	0.23	0.02	0.1	0.1735	0.064
5-Aug-00	1.6	26.58	51.58	0.82	0.23	0.02	0.1	0.1735	0.064
6-Aug-00	1.6	26.58	51.58	0.82	0.23	0.02	0.1	0.1735	0.064
7-Aug-00	1.6	26.58	51.58	0.82	0.23	0.02	0.1	0.1735	0.064
8-Aug-00	1.6	26.58	51.58	0.82	0.23	0.02	0.1	0.1735	0.064
9-Aug-00	1.6	26.58	51.58	1.3	0.23	0.02	0.118	0.1735	0.064
10-Aug-00	1.6	26.58	51.58		0.24	0.02		0.1735	0.052
11-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
12-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
13-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
14-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
15-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
16-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
17-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
18-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
19-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
20-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
21-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
22-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
23-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
24-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
25-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
26-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
27-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
28-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
29-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
30-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
31-Aug-00	1.6	26.58	51.58		0.22	0.02		0.1735	0.06
1-Sep-00	0.0	26.58	51.58		0.22	0.02		0.1735	0.06
2-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
3-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
4-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
5-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
6-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
7-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
8-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
9-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
10-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
11-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
12-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
13-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
14-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
15-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
16-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
17-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
18-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
19-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
20-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
21-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
22-Sep-00	0.0	6.13	31.13		0.22	0.02		0.1735	0.06
23-Sep-00	0.0	6.13	31.13		0.2	0.02		0.1735	0.06
24-Sep-00	0.0	6.13	31.13		0.19	0.02		0.1735	0.068
25-Sep-00	0.0	6.13	31.13		0.19	0.02		0.1735	0.065
26-Sep-00	0.0	6.13	31.13		0.19	0.02		0.1735	0.065
27-Sep-00	0.0	6.13	31.13		0.19	0.02		0.1735	0.065
28-Sep-00	0.0	6.13	31.13		0.19	0.02		0.1735	0.065
29-Sep-00	0.0	6.13	31.13		0.19	0.02		0.1735	0.065
30-Sep-00	0.0	6.13	31.13		0.19	0.02		0.1735	0.065
1-Oct-00	0.0	6.13	31.13		0.19	0.02		0.1735	0.065
2-Oct-00	0.0	8.98	33.98		0.19	0.02		0.1735	0.065
3-Oct-00	0.0	8.98	33.98		0.19	0.02		0.1735	0.065
4-Oct-00	0.0	8.98	33.98		0.19	0.02		0.1735	0.065
5-Oct-00	0.0	8.98	33.98		0.19	0.02		0.1735	0.065
6-Oct-00	0.0	8.98	33.98		0.19	0.02		0.1735	0.065
7-Oct-00	0.0	8.98	33.98		0.19	0.02		0.1735	0.065
8-Oct-00	0.0	8.98	33.98		0.19	0.02		0.1735	0.065
9-Oct-00	0.0	8.98	33.98		0.19	0.02		0.1735	0.065
10-Oct-00	0.0	8.98	33.98		0.19	0.02		0.1735	0.065
11-Oct-00	0.0	8.98	33.98		0.19	0.02		0.1735	0.065

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
12-Oct-00	0.0	8.98	33.98		0.19	0.02		0.1735	0.065
13-Oct-00	0.0	8.98	33.98		0.19	0.02		0.1735	0.065
14-Oct-00	0.0	8.98	33.98		0.19	0.02		0.1735	0.065
15-Oct-00	0.0	8.98	33.98		0.19	0.02		0.1735	0.065
16-Oct-00	0.0	8.98	33.98		0.18	0.02		0.157	0.062
17-Oct-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
18-Oct-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
19-Oct-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
20-Oct-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
21-Oct-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
22-Oct-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
23-Oct-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
24-Oct-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
25-Oct-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
26-Oct-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
27-Oct-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
28-Oct-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
29-Oct-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
30-Oct-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
31-Oct-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
1-Nov-00	0.0	8.98	33.98		0.18	0.105		0.1715	0.057
2-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
3-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
4-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
5-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
6-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
7-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
8-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
9-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
10-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
11-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
12-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
13-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
14-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
15-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
16-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
17-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
18-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
19-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057

Table 13: Raw Data for Loadings of Tot-^{226}Ra and Tot-U and Flow Volumes (continuation)

Date	Flow Volume l.s-1			Total ^{226}Ra Bq.l-1			Total U mg.l-1		
	W5	W15	W25	W5	W15	W25	W5	W15	W25
20-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
21-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
22-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
23-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
24-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
25-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
26-Nov-00	0.0	9.47	34.47		0.18	0.105		0.1715	0.057
27-Nov-00	0.0	9.47	34.47		0.18	0.19		0.1715	0.052
28-Nov-00	0.0	9.47	34.47		0.18	0.11		0.1715	0.063
29-Nov-00	0.0	9.47	34.47		0.18	0.11		0.1715	0.063
30-Nov-00	0.0	9.47	34.47		0.18	0.11		0.1715	0.063
1-Dec-00	0.0				0.18	0.11		0.186	0.063
2-Dec-00	0.0					0.11			0.063
3-Dec-00	0.0					0.11			0.063
4-Dec-00	0.0					0.03			0.074

Table 14: Raw Data for Figure 8 and Figure 9

Drainage Basin	Location Code 1	Location Code 2	Sample Date	226 Ra Bq/g	L.O.I. %
C	ULL-AN	W14	25-Feb-88	0.37	9.7
C	ULL-AN	W14	25-Feb-88	0.07	11.0
C	ULL-AN	Shallow Delta A	30-Aug-98	9.5	1.62
C	ULL-AN	Shallow Delta B	01-Sep-98	6	3.38
C	ULL-AN	Shallow Delta C	01-Sep-98	22	2.56
C	ULL-AN	Deep Delta A	30-Aug-98	54	5.41
C	ULL-AN	Deep Delta B	30-Aug-98	37	5.36
C	ULL-AN	Deep Delta C	30-Aug-98	28	4.02
C	ULL-AN	Deep Delta D	01-Sep-98	12	7.31
C	ULL-AN		01-Sep-98	33	6.01
D	ULL-BN		01-Sep-98	6.2	27.13
E-1	BAD	W20	25-Feb-88	0.15	13.5
E-1	BAD	W20	25-Feb-88	0.23	34.1
E-1	BAD	W20	25-Feb-88	0.12	17.9
E-1	BAD	W20	25-Feb-88	1.87	26.1
E-1	BAD	W20	25-Feb-88	0.5	29.1
E-1	BAD	W20	25-Feb-88	0.4	27.8
E-1	BAD	W20	26-Jun-88	6	43.3
E-1	BAD	W20	29-Aug-98	4.8	27.04
E-2	LLL	W23	25-Feb-88	0.12	23.7
E-2	LLL	W24.1	25-Feb-88	0.18	16.1
E-2	LLL	W24.1	25-Feb-88	1.47	29.5
E-2	LLL	W25	25-Feb-88	0.67	26.5
E-2	LLL	W25	25-Feb-88	0.12	13.8
E-2	LLL	W23	29-Aug-98	1.3	14.4
E-2	LLL	W23.1	29-Aug-98	0.53	37.4
E-2	LLL	W24.1	29-Aug-98	1.2	48.4
E-2	LLL	W25	29-Aug-98	1.3	23.9

Table 15: Raw Data for Figure 10 and Figure 11

Drainage Basin	Location Code 1	Location Code 2	Sample Date	U, Fluor ug/g	L.O.I. %
C,D	ULL		**Jul-76**	1172	13
C,D	ULL		Jul-76	1456	16
C,D	ULL		Jul-76	2083	13
C,D	ULL		Jul-76	1622	19
C,D	ULL		Jul-76	510	11
C,D	ULL		Jul-76	704	13
C,D	ULL		Jul-76	965	9
C,D	ULL		Jul-76	1171	39
C,D	ULL		Jul-76	683	15
C,D	ULL		Jul-76	438	31
C,D	ULL		Jul-76	1120	23
C,D	ULL		Jul-76	639	18
C,D	ULL		Jul-76	395	12
C,D	ULL		Jul-76	515	6
C,D	ULL		Jul-76	847	12
C,D	ULL		Jul-76	1002	12
C,D	ULL		Jul-76	1345	12
C,D	ULL		Jul-76	951	13
C,D	ULL		Jul-76	920	13
C,D	ULL		Jul-76	344	25
C,D	ULL		Jul-76	745	15
C,D	ULL		Jul-76	322	9
C,D	ULL		Jul-76	99	13
C,D	ULL		Jul-76	225	18
C,D	ULL		Jul-76	638	19
C,D	ULL		Jul-76	674	13
C,D	ULL		Jul-76	366	26
C,D	ULL		Jul-76	659	10
C,D	ULL		Jul-76	106	14
C,D	ULL		Jul-76	356	27
C,D	ULL		Jul-76	510	17
C,D	ULL		Jul-76	105	26
C,D	ULL		Jul-76	277	26
C,D	ULL		Jul-76	487	29
C,D	ULL		Jul-76	234	30
C,D	ULL		Jul-76	167	34
C,D	ULL		Jul-76	256	50
C,D	ULL		Jul-76	527	27
C,D	ULL		Jul-76	483	33
C,D	ULL		Jul-76	142	39

Table 15: Raw Data for Figure 10 and Figure 11(continuation)

Drainage Basin	Location Code 1	Location Code 2	Sample Date	U, Fluor ug/g	L.O.I. %
C,D	ULL		Jul-76	290	40
C,D	ULL		Jul-76	209	34
C,D	ULL		Jul-76	70	35
C,D	ULL		Jul-76	204	25
C,D	ULL		Jul-76	537	10
C,D	ULL		Jul-76	95	14
C,D	ULL		Jul-76	19	4
C,D	ULL		Jul-76	134	38
C,D	ULL		Jul-76	192	37
C,D	ULL		Jul-76	36	7
C,D	ULL		Jul-76	178	32
C,D	ULL		Jul-76	134	27
C	ULL-AN	W14	25-Feb-88	228	21.3
C	ULL-AN	W14	25-Feb-88	116	9.7
C	ULL-AN	W14	25-Feb-88	29.8	11.0
C,D	ULL	162	May-88	10	37.61
C,D	ULL	163	May-88	10	32.53
C,D	ULL	194	May-88	10	37.43
C,D	ULL	156	May-88	10	37.22
C,D	ULL	144	May-88	10	35.53
C,D	ULL	145	May-88	10	35.22
C,D	ULL	255	May-88	60	20.22
C,D	ULL	228	May-88	10	14.5
C,D	ULL	229	May-88	10	11.51
C,D	ULL	300	May-88	10	22.19
C,D	ULL	316	May-88	10	22.49
C,D	ULL	319	May-88	10	20.58
C	ULL-AN	Shallow Delta A	30-Aug-98	780	1.62
C	ULL-AN	Shallow Delta B	01-Sep-98	490	3.38
C	ULL-AN	Shallow Delta C	01-Sep-98	1800	2.56
C	ULL-AN	Deep Delta A	30-Aug-98	3620	5.41
C	ULL-AN	Deep Delta B	30-Aug-98	3580	5.36
C	ULL-AN	Deep Delta C	30-Aug-98	2710	4.02
C	ULL-AN	Deep Delta D	01-Sep-98	1230	7.31
C	ULL-AN		01-Sep-98	3830	6.01
D	ULL-BN		01-Sep-98	2270	27.13
E-1	BAD	W20	25-Feb-88	69.4	13.5
E-1	BAD	W20	25-Feb-88	119	34.1
E-1	BAD	W20	25-Feb-88	53.4	17.9
E-1	BAD	W20	25-Feb-88	753	26.1

Table 15: Raw Data for Figure 10 and Figure 11(continuation)

Drainage Basin	Location Code 1	Location Code 2	Sample Date	U, Fluor ug/g	L.O.I. %
E-1	BAD	W20	25-Feb-88	207	29.1
E-1	BAD	W20	25-Feb-88	188	27.8
E-1	BAD	W20	26-Jun-88	2980	43.3
E-1	BAD	W20	29-Aug-98	3750	27.04
E-2	LLL		**Jul-76**	160	18
E-2	LLL		Jul-76	375	28
E-2	LLL		Jul-76	222	30
E-2	LLL		Jul-76	274	29
E-2	LLL		Jul-76	101	27
E-2	LLL		Jul-76	106	25
E-2	LLL		Jul-76	102	23
E-2	LLL		Jul-76	53	24
E-2	LLL		Jul-76	150	28
E-2	LLL		Jul-76	67	25
E-2	LLL		Jul-76	41	13
E-2	LLL		Jul-76	183	22
E-2	LLL		Jul-76	65	18
E-2	LLL		Jul-76	62	30
E-2	LLL		Jul-76	61	32
E-2	LLL		Jul-76	138	11
E-2	LLL		Jul-76	695	27
E-2	LLL		Jul-76	259	22
E-2	LLL		Jul-76	63	27
E-2	LLL		Jul-76	67	34
E-2	LLL		Jul-76	117	24
E-2	LLL		Jul-76	114	27
E-2	LLL		Jul-76	215	31
E-2	LLL		Jul-76	64	33
E-2	LLL		Jul-76	88	33
E-2	LLL		Jul-76	103	34
E-2	LLL		Jul-76	28	11
E-2	LLL		Jul-76	85	31
E-2	LLL		Jul-76	61	33
E-2	LLL		Jul-76	66	18
E-2	LLL		Jul-76	95	33
E-2	LLL		Jul-76	85	30
E-2	LLL		Jul-76	49	6
E-2	LLL		Jul-76	29	4
E-2	LLL		Jul-76	183	34
E-2	LLL		Jul-76	92	30

Table 15: Raw Data for Figure 10 and Figure 11(continuation)

Drainage Basin	Location Code 1	Location Code 2	Sample Date	U, Fluor ug/g	L.O.I. %
E-2	LLL		Jul-76	110	31
E-2	LLL		Jul-76	69	30
E-2	LLL		Jul-76	77	30
E-2	LLL		Jul-76	61	31
E-2	LLL		Jul-76	106	29
E-2	LLL		Jul-76	52	31
E-2	LLL		Jul-76	56	30
E-2	LLL		Jul-76	381	28
E-2	LLL		Jul-76	67	31
E-2	LLL		Jul-76	56	30
E-2	LLL		Jul-76	255	30
E-2	LLL		Jul-76	68	25
E-2	LLL		Jul-76	87	24
E-2	LLL		Jul-76	52	29
E-2	LLL		Jul-76	127	32
E-2	LLL		Jul-76	107	28
E-2	LLL		Jul-76	63	31
E-2	LLL		Jul-76	64	30
E-2	LLL		Jul-76	156	29
E-2	LLL		Jul-76	600	39
E-2	LLL		Jul-76	1000	40
E-2	LLL		Jul-76	1936	46
E-2	LLL	W23	25-Feb-88	62.4	23.7
E-2	LLL	W24.1	25-Feb-88	105	16.1
E-2	LLL	W24.1	25-Feb-88	1590	29.5
E-2	LLL	W25	25-Feb-88	639	26.5
E-2	LLL	W25	25-Feb-88	62.3	13.8
E-2	LLL	W23	29-Aug-98	1300	14.4
E-2	LLL	W23.1	29-Aug-98	475	37.4
E-2	LLL	W24.1	29-Aug-98	1770	48.4
E-2	LLL	W25	29-Aug-98	2810	23.9

Table 16: Raw Data for Sediment 1999 and Figure 13

Location	Code on map	Depth cm	^{226}Ra Bq/g	U ug/g	Organic C %	Moisture %	Location	Code on map	Depth cm	^{226}Ra Bq/g	U ug/g	Organic C %	Moisture %
Upper Link Lake Upper Basin	UB1	0-5	16	4570	4.55	83.61	Upper Link Lake Lower Basin	LB1	0-5	7	5310	8.28	90.76
	UB2	0-5	11	3330	9.23	87.17		LB2	0-5	6.8	4210	8.13	84.8
	UB3	0-5	19	3970	4.19	82.66		LB3	0-5	6	5960	9.05	90.99
	UB4	0-5	25	4760	4.03	85.57		LB4	0-5	9	5140	9.93	89.95
	UB5	0-5	22	3640	2.36	77.9		LB5	0-5	13	6400	11.56	94.58
	UB6	0-5	18	4120	3.59	85.57		LB6	0-5	4.9	2850	9.59	81.6
	UB7	0-5	23	3670	3.51	81.04		LB7	0-5	9.8	5480	7.47	88.9
	UB8	0-5	24	3530	2.18	76.88		LB8	0-5	3.6	8390	9.05	90.8
	UB9	0-5	12	2730	2.61	76.92		LB9	0-5	7.2	3040	11.08	90.64
	UB10	0-5	23	3480	4.25	79.96		LB10	0-5	3.6	4040	9.83	89.24
	UB11	0-5	21	3940	2.79	82.27	Lower Link Lake	LL1	0-5	1.9	1680	12.31	93.53
	UB12	0-5	18	3680	2.82	80.21		LL2	0-5	1.9	1830	13.71	92.24
	UB13	0-5	15	4430	4.07	84.33		LL3	0-5	1.4	1710	14.22	88.27
	UB14	0-5	35	3360	2.53	71.84		LL4	0-5	1.7	2220	-	-
	UB15	0-5	14	2940	8.33	87.28		LL5	0-5	2	2220	13.62	91.81
	UB16	0-5	17	4040	3.7	82.51		LL6	0-5	1.7	1610	15.75	92.78
	UB17	0-5	7.7	1460	11.53	85.08		LL7	0-5	1	1070	-	-
	UB17	10-15	52	4080	0.66	60.36		LL8	0-5	1.8	2050	12.64	93.29
	UB18	0-5	42	4540	2.85	77.55		LL9	0-5	1.3	1280	11.18	88.29
	UB18	10-15	54	4130	0.52	60.62		LL10	0-5	1.6	1610	12.71	82.33
	UB19	0-5	1.7	2220	13.49	89.52							
	UB19	0-5	1.4	178	3.42	74.87							
	UB19	10-15	25	4320	2.48	78.91							
	UB20	0-5	23	3900	2.46	80.28							
	UB20	10-15	1.3	289	15.18	89.97							
	UB21	0-5	16	4090	4.02	83.61							
	UB21	10-15	0.85	276	15.2	87.53							

Table 17: Raw Data for Reference Lake

Radionuclides	Reference Lake (29-Mar-99)	0-2cm	2-4cm	4-6cm	6-8cm	8-10cm	Average
Hidden Bay (HBS1, 30-Mar-99)							
^{226}Ra (Bq/g)	0.07	0.14	0.14	0.12	0.12	0.11	0.13
U (ug/g)	14.1	48.7	38.57	22.97	15.87	14.43	28.11
Hidden Bay (HBS2, 31-Mar-99)							
^{226}Ra (Bq/g)	0.07	0.15	0.11	0.1	0.1	0.09	0.11
U (ug/g)	14.1	29.03	18.77	13.43	13.5	10.9	17.13
Pow Bay (PBS1, 26-Mar-99 and 12-Apr-99)							
^{226}Ra (Bq/g)	0.07	0.11	0.09	0.05	0.05	0.06	0.07
U (ug/g)	14.1	7.20	5.63	6.50	7.30	7.20	6.77
Reference Bay (RBS1, 11-Apr-99)							
^{226}Ra (Bq/g)	0.07	0.08	0.08	0.08	0.06	0.06	0.07
U (ug/g)	14.1	8.30	7.50	6.70	6.87	6.53	7.18

Table 18: Comparison of L.O. I. with TOC

(Using 1998 B-Zone Sediments As An Example)

Locations	Station	TOC % (SRC)	L.O.I. % (Boojum)	Corrlection between TOC and L.O.I.
BT1	100	37.6	78.81	L.O.I. % = 2.12306 x TOC % +1.14930 R^2 = 0.99337
	150	19.08	40.19	
	205	20.38	45.63	
	240	18.84	41	
BT2	100	30.59	65	
	250	38.41	84.57	
	305S	33.87	71.87	
	N end	17.04	38.27	
BT3	150	35.99	79.59	

Table 19: Sediment Chemistry for Core Samples from Upper Link Lake, 1999

Analyte	Units	UB17		UB18		UB19		UB20		UB21	
		0-5 cm	10-15 cm	0-5 cm	10-15 cm	0-5 cm	10-15 cm	0-5 cm	10-15 cm	0-5 cm	10-15 cm
Inorganic ions											
Calcium	µg•g^{-1}	6000	2600	2900	3100	3000	2800	2400	3800	3100	4800
Magnesium	µg•g^{-1}	14300	100000	66400	104000	6900	67800	76000	3400	52600	3900
Potassium	µg•g^{-1}	2300	2200	3700	2400	4500	4400	4000	1800	3900	2800
Sodium	µg•g^{-1}	200	230	290	270	250	340	290	120	330	150
Sulfate, acid soluble	µg•g^{-1}	5900	1100	2200	830	1100	2300	1700	4300	2800	4000
Metals											
Aluminum	µg•g^{-1}	20300	81800	64700	83400	21800	67000	71300	10100	53300	16400
Barium	µg•g^{-1}	48	45	73	49	50	77	71	39	77	56
Boron	µg•g^{-1}	30	160	140	230	23	120	140	14	100	24
Cadmium	µg•g^{-1}	1.8	1.9	2	1.8	1.4	2	2.1	0.5	2	<0.5
Chromium	µg•g^{-1}	27	40	43	82	35	34	54	13	60	10
Copper	µg•g^{-1}	65	420	220	500	8.3	230	180	12	140	14
Iron	µg•g^{-1}	26000	28500	29500	27900	24200	29500	31500	7500	29100	6600
Lead	µg•g^{-1}	25	460	300	410	8	240	210	11	160	7
Manganese	µg•g^{-1}	190	240	240	280	150	240	250	100	230	110
Molybdenum	µg•g^{-1}	14	43	42	46	9.4	53	32	5	50	6
Nickel	µg•g^{-1}	33	180	140	200	22	140	150	11	110	14
Silver	µg•g^{-1}	1	15	3.4	3.7	<0.5	3	2.7	<0.5	2.7	<0.5
Titanium	µg•g^{-1}	330	260	360	290	520	430	360	120	360	220
Zinc	µg•g^{-1}	42	62	200	40	27	170	150	22	170	29
Zirconium	µg•g^{-1}	34	33	43	70	22	25	50	11	45	8.5
Nutrients											
Organic carbon	%	11.53	0.66	2.85	0.52	3.42	2.48	2.46	15.18	4.02	15.2
Phosphorus	µg•g^{-1}	680	650	950	490	670	980	950	540	1000	520
Physical properties											
Moisture	%	85.08	60.36	77.55	60.62	74.87	78.91	80.28	89.97	83.61	87.53
Wt. % LOI @ 500°C	%	28.66	6.24	10.14	5.12	13.19	8.6	9.37	35.71	11.65	34.1
Wt. % Sand	%	0.93	4.74	0.27	0.03	0.03	0.14	0.14	0.17	0.19	1.35
Wt. % Clay	%	11.86	13.16	27.35	25.12	15.16	39.95	52.33	32.55	45.98	45.99
Wt. % Silt	%	87.21	82.11	72.39	74.85	84.8	59.92	47.53	67.27	53.83	52.66
Radionuclides											
Radium-226	Bq•g^{-1}	7.7	52	42	54	1.4	25	23	1.3	16	0.85
Uranium	µg•g^{-1}	1460	4080	4540	4130	178	4320	3900	289	4090	276
Trace elements											
Arsenic	µg•g^{-1}	12	33	37	26	6.9	32	28	4.8	30	3.3
Beryllium	µg•g^{-1}	2.1	9.7	7.5	9.9	1.6	7.3	7.8	0.8	6.1	1.1
Cobalt	µg•g^{-1}	9.5	39	29	46	6.7	30	29	3.5	24	4.1
Strontium	µg•g^{-1}	49	40	81	57	100	91	82	30	90	31
Vanadium	µg•g^{-1}	49	240	180	280	30	180	180	15	150	17

Note: LOI = loss on ignition.

Table 20: Chemistry of Sediment from Upper and Lower Link Lakes and Reference Lake, 1999

Analyte	Units	Upper Link Lake - Upper Basin 1 20-Mar-99	Upper Link Lake - Upper Basin 2 20-Mar-99	Upper Link Lake - Lower Basin 3 22-Mar-99	Upper Link Lake - Lower Basin 4 24-Mar-99	Lower Link Lake 5 26-Mar-99	Reference Lake 6 29-Mar-99
Inorganic Ions							
Calcium	$\mu g \cdot g^{-1}$	3100	3300	6500	5900	8000	6000
Magnesium	$\mu g \cdot g^{-1}$	55700	57400	27400	22700	5400	1600
Potassium	$\mu g \cdot g^{-1}$	5900	5200	4700	4400	3000	910
Sodium	$\mu g \cdot g^{-1}$	430	400	400	350	330	280
Metals							
Aluminum	$\mu g \cdot g^{-1}$	63800	62000	40200	35800	19600	7700
Barium	$\mu g \cdot g^{-1}$	75	80	100	86	75	75
Boron	$\mu g \cdot g^{-1}$	100	98	59	58	25	4
Cadmium	$\mu g \cdot g^{-1}$	2.2	2.1	2.4	1.9	1.3	2.4
Chromium	$\mu g \cdot g^{-1}$	40	54	47	42	25	16
Copper	$\mu g \cdot g^{-1}$	150	150	79	62	26	4
Iron	$\mu g \cdot g^{-1}$	32300	30600	33900	27600	18700	33500
Lead	$\mu g \cdot g^{-1}$	170	180	95	77	15	8
Manganese	$\mu g \cdot g^{-1}$	250	240	330	300	190	420
Molybdenum	$\mu g \cdot g^{-1}$	35	55	40	35	27	4.8
Nickel	$\mu g \cdot g^{-1}$	120	120	75	60	23	6.3
Silver	$\mu g \cdot g^{-1}$	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Titanium	$\mu g \cdot g^{-1}$	510	420	380	370	440	310
Zinc	$\mu g \cdot g^{-1}$	180	250	200	150	64	54
Zirconium	$\mu g \cdot g^{-1}$	28	62	52	49	23	9.7
Nutrients							
Organic carbon	%	3.14	4.9	10.33	9.78	13.1	21.87
Phosphorus	$\mu g \cdot g^{-1}$	1100	1300	2000	1700	1500	1100
Total Kjeldahl nitrogen	$\mu g \cdot g^{-1}$	3750	5740	10100	9540	12800	19200
Radionuclides							
Lead-210	$Bq \cdot g^{-1}$	19	28	12	9.6	1.7	0.33
Polonium-210	$Bq \cdot g^{-1}$	13	12	8.7	8	2.2	0.35
Radium-226	$Bq \cdot g^{-1}$	15	19	13	13	1.8	0.07
Uranium	$\mu g \cdot g^{-1}$	3410	5460	7420	5950	1970	14.1
Trace Elements							
Arsenic	$\mu g \cdot g^{-1}$	28	36	36	30	10	5.3
Beryllium	$\mu g \cdot g^{-1}$	6.3	6.5	4.1	3.4	1.4	0.6
Cobalt	$\mu g \cdot g^{-1}$	24	25	18	16	8	5.2
Strontium	$\mu g \cdot g^{-1}$	110	95	92	79	51	20
Vanadium	$\mu g \cdot g^{-1}$	160	160	92	77	25	27

Table 21: Raw Data for Sediments, 1972-1998

Location Code 1	Location Code 2	Depth inches	Sample Date	Method/ LOI code	U, Fluor ug/g	226 Ra Bq/g
ULL			**Aug-72**	grab		0.11
ULL			Aug-72	grab		0.15
ULL			Aug-72	grab		0.14
ULL			**Sep-74**	grab		
ULL			**Jul-76**		1172	
ULL			Jul-76		1456	
ULL			Jul-76		2083	
ULL			Jul-76		1622	
ULL			Jul-76		510	
ULL			Jul-76		704	
ULL			Jul-76		965	
ULL			Jul-76		1171	
ULL			Jul-76		683	
ULL			Jul-76		438	
ULL			Jul-76		1120	
ULL			Jul-76		639	
ULL			Jul-76		395	
ULL			Jul-76		515	
ULL			Jul-76		847	
ULL			Jul-76		1002	
ULL			Jul-76		1345	
ULL			Jul-76		951	
ULL			Jul-76		920	
ULL			Jul-76		344	
ULL			Jul-76		745	
ULL			Jul-76		322	
ULL			Jul-76		99	
ULL			Jul-76		225	
ULL			Jul-76		638	
ULL			Jul-76		674	
ULL			Jul-76		366	
ULL			Jul-76		659	
ULL			Jul-76		106	
ULL			Jul-76		356	
ULL			Jul-76		510	
ULL			Jul-76		105	
ULL			Jul-76		277	
ULL			Jul-76		487	
ULL			Jul-76		234	
ULL			Jul-76		167	
ULL			Jul-76		256	
ULL			Jul-76		527	

Table 21: Raw Data for Sediments, 1972-1998

Location Code 1	Location Code 2	Depth inches	Sample Date	Method/ LOI code	U, Fluor ug/g	226 Ra Bq/g
ULL			Jul-76		483	
ULL			Jul-76		142	
ULL			Jul-76		290	
ULL			Jul-76		209	
ULL			Jul-76		70	
ULL			Jul-76		204	
ULL			Jul-76		537	
ULL			Jul-76		95	
ULL			Jul-76		19	
ULL			Jul-76		134	
ULL			Jul-76		192	
ULL			Jul-76		36	
ULL			Jul-76		178	
ULL			Jul-76		134	
ULL	28A	0-2	**Mar-82**	Core	3320	80
ULL	28B	0-2	Mar-82	Core	4140	71
ULL	28C	0-2	Mar-82	Core	3240	52.7
ULL	28D	0-2	Mar-82	Core	3760	68
ULL	29A	0-1	Mar-82	Core	889	13.1
ULL	29B	0-2	Mar-82	Core	805	12.9
ULL	29C	0-2	Mar-82	Core	699	12.7
ULL	29D	0-2	Mar-82	Core	723	15.1
ULL	30A	0-1	Mar-82	Core	2850	35
ULL	30B	0-2	Mar-82	Core	3130	34
ULL	30C	0-2	Mar-82	Core	3280	37
ULL	30D	0-2	Mar-82	Core		34
ULL	31A	0-1	Mar-82	Core	5520	39
ULL	31B	0-2	Mar-82	Core	5540	39
ULL	31C	0-2	Mar-82	Core	3320	20.3
ULL	28A	0-2	Mar-82	Core	3320	80.0
ULL	28A	2-3	Mar-82	Core	4860	91.0
ULL	28A	3-4	Mar-82	Core	3760	68.0
ULL	28A	4-5	Mar-82	Core	3600	50.0
ULL	28A	5-6	Mar-82	Core	1600	29.0
ULL	28A	6-7	Mar-82	Core	1800	24.0
ULL	28A	7-8	Mar-82	Core	2110	10.3
ULL	28A	8-9	Mar-82	Core	1980	9.6
ULL	28A	9-10	Mar-82	Core	1150	12.7
ULL	28A	10-11	Mar-82	Core	1690	31.0
ULL	28A	11-12	Mar-82	Core	2160	40.0
ULL	28A	12-14	Mar-82	Core	1540	17.2
ULL	28A	14-16	Mar-82	Core	438	4.7

Table 21: Raw Data for Sediments, 1972-1998

Location Code 1	Location Code 2	Depth inches	Sample Date	Method/ LOI code	U, Fluor ug/g	226 Ra Bq/g
ULL	28A	16-18	Mar-82	Core	475	3.1
ULL	28A	18-20	Mar-82	Core	886	5.4
ULL	28A	20-22	Mar-82	Core	501	2.5
ULL	29A	0-1	Mar-82	Core	889	13.1
ULL	29A	1-2	Mar-82	Core	521	9.3
ULL	29A	2-3	Mar-82	Core	526	10.9
ULL	29A	3-4	Mar-82	Core	1120	20.6
ULL	29A	4-5	Mar-82	Core	1060	22.8
ULL	29A	5-6	Mar-82	Core	722	16.1
ULL	29A	6-7	Mar-82	Core	594	15.3
ULL	29A	7-8	Mar-82	Core	414	11.6
ULL	29A	8-9	Mar-82	Core	274	8.6
ULL	29A	9-10	Mar-82	Core	382	11.6
ULL	29A	10-12	Mar-82	Core	347	9.9
ULL	29A	12-14	Mar-82	Core	234	4.6
ULL	29A	14-16	Mar-82	Core	119	2.7
ULL	29A	16-18	Mar-82	Core	215	3.0
ULL	29A	18-20	Mar-82	Core	144	2.0
ULL	29A	20-25	Mar-82	Core	164	1.3
ULL	30A	0-1	Mar-82	Core	2850	35.0
ULL	30A	1-2	Mar-82	Core	3270	35.0
ULL	30A	2-3	Mar-82	Core	3230	37.0
ULL	30A	3-4	Mar-82	Core	2530	28.3
ULL	30A	4-5	Mar-82	Core	1820	13.3
ULL	30A	5-6	Mar-82	Core	1370	6.2
ULL	30A	6-7	Mar-82	Core	340	1.8
ULL	30A	7-8	Mar-82	Core		
ULL	30A	8-9	Mar-82	Core	173	0.9
ULL	30A	9-10	Mar-82	Core	304	1.6
ULL	30A	10-12	Mar-82	Core	348	2.3
ULL	30A	12-14	Mar-82	Core	312	2.0
ULL	31A	0-1	Mar-82	Core	5520	39
ULL	31A	1-2	Mar-82	Core	5040	32
ULL	31A	2-3	Mar-82	Core	4140	24.3
ULL	31A	3-4	Mar-82	Core	1200	6
ULL	31A	4-5	Mar-82	Core	719	3.3
ULL	31A	5-6	Mar-82	Core	491	2.1
ULL	31A	6-7	Mar-82	Core		2
ULL	31A	7-8	Mar-82	Core		1.4
ULL	31A	8-9	Mar-82	Core		0.96
ULL	31A	9-10	Mar-82	Core		1.19
ULL	31A	10-12	Mar-82	Core	243	0.96

Table 21: Raw Data for Sediments, 1972-1998

Location Code 1	Location Code 2	Depth inches	Sample Date	Method/ LOI code	U, Fluor ug/g	226 Ra Bq/g
ULL	31A	12-14	Mar-82	Core	181	0.56
ULL	31A	14-16	Mar-82	Core	165	0.56
ULL	31A	16-18	Mar-82	Core	142	0.32
ULL	31A	18-20	Mar-82	Core	141	0.26
ULL	31A	20-25	Mar-82	Core	127	0.22
ULL			**Mar-84**		2400	33
ULL			Mar-84		2600	
ULL			Mar-84		2930	30
ULL-AN	W14	Lower	25-Feb-88		228	
ULL-AN	W14	Upper	25-Feb-88		116	0.37
ULL-AN	W14	Whole	25-Feb-88		29.8	0.07
ULL	162		May-88		10	
ULL	163		May-88		10	
ULL	194		May-88		10	
ULL	156		May-88		10	
ULL	144		May-88		10	
ULL	145		May-88		10	
ULL	255		May-88		60	
ULL	228		May-88		10	
ULL	229		May-88		10	
ULL	300		May-88		10	
ULL	316		May-88		10	
ULL	319		May-88		10	
					14.17	
					10.00	0.00
					60.00	0.00
					12	0
ULL-AN	LC1		**21-Sep-89**	160	1500	14
ULL-AN	LC2		21-Sep-89	161	1920	22
ULL-AN	LC3		21-Sep-89	162	2790	222
ULL-AN	LC4		21-Sep-89	163	2140	17
ULL-BN	LC5		21-Sep-89	164	252	1
ULL-BN	LC6		21-Sep-89	165	283	1.4
ULL-AN	PWP 4A		**16-Sep-92**	L218		
ULL-AN	PWP 7		16-Sep-92	L219		
ULL-AN	PWP 6		16-Sep-92	L220		
ULL-AN	PWP 3		16-Sep-92	L221		
ULL-AN	PWP 4B		16-Sep-92	L222		
ULL-AN	PWP 2		16-Sep-92	L223		
ULL-AN	PWP 9		16-Sep-92	L224		
ULL-AN	PWP 1		16-Sep-92	L225		
ULL-AN	PWP 5		16-Sep-92	L226		

Table 21: Raw Data for Sediments, 1972-1998

Location Code 1	Location Code 2	Depth inches	Sample Date	Method/ LOI code	U, Fluor ug/g	226 Ra Bq/g
ULL-AN	PWP 13		16-Sep-92	L227		
ULL-AN	PWP 14		16-Sep-92	L228		
ULL-AN	PWP 24		16-Sep-92	L229		
ULL-AN	PWP 10		16-Sep-92	L230		
ULL-AN	PWP 16A		16-Sep-92	L231		
ULL-AN	PWP 15		16-Sep-92	L232		
ULL-AN	PWP 12B		16-Sep-92	L233		
ULL-AN	PWP 11		16-Sep-92	L234		
ULL-AN	PWP 22		16-Sep-92	L235		
ULL-AN	PWP 16B		16-Sep-92	L236		
ULL-AN	PWP 20		16-Sep-92	L237		
ULL-AN	PWP 21		16-Sep-92	L238		
ULL-AN	PWP 8		16-Sep-92	L239		
ULL-AN	PWP 12A		16-Sep-92	L240		
ULL-AN	PWP 23		16-Sep-92	L241		
ULL-AN	PWP 17		16-Sep-92	L242		
ULL-AN	PWP 18		16-Sep-92	L243		
ULL-AN	Shallow Delta A		30-Aug-98		780	9.5
ULL-AN	Shallow Delta B		01-Sep-98		490	6
ULL-AN	Shallow Delta C		01-Sep-98		1800	22
ULL-AN	Deep Delta A		30-Aug-98		3620	54
ULL-AN	Deep Delta B		30-Aug-98		3580	37
ULL-AN	Deep Delta C		30-Aug-98		2710	28
ULL-AN	Deep Delta D		01-Sep-98		1230	12
					2030	24
					490	6
					3620	54
					7	7
ULL-AN			01-Sep-98		3830	33
ULL-BN			01-Sep-98		2270	6.2
					1159	1.2
					1344	0.28
					7	1
					5540	1.4
					166	2
BAD	W20	Lower	25-Feb-88		69.4	0.15
BAD	W20	Lower	25-Feb-88		119	0.23
BAD	W20	Lower	25-Feb-88		53.4	0.12
BAD	W20	Upper	25-Feb-88		753	1.87
BAD	W20	Upper	25-Feb-88		207	0.5
BAD	W20	Upper	25-Feb-88		188	0.4
BAD	W20	Whole	26-Jun-88	5	2980	6

Table 21: Raw Data for Sediments, 1972-1998

Location Code 1	Location Code 2	Depth inches	Sample Date	Method/ LOI code	U, Fluor ug/g	226 Ra Bq/g
					232	0.55
					53	0.12
					753	1.87
					6	6
BAD	W20		29-Aug-98		3750	4.8
					624	1.3
					1066	2.1
					53.4	0.12
					2980	6
					7	7
LLL			**Aug-72**	Grab		0.13
LLL			Aug-72	Grab		0.08
LLL			**Sep-74**	Grab		
LLL			**Jul-76**	Grab	160	
LLL			Jul-76	Grab	375	
LLL			Jul-76	Grab	222	
LLL			Jul-76	Grab	274	
LLL			Jul-76	Grab	101	
LLL			Jul-76	Grab	106	
LLL			Jul-76	Grab	102	
LLL			Jul-76	Grab	53	
LLL			Jul-76	Grab	150	
LLL			Jul-76	Grab	67	
LLL			Jul-76	Grab	41	
LLL			Jul-76	Grab	183	
LLL			Jul-76	Grab	65	
LLL			Jul-76	Grab	62	
LLL			Jul-76	Grab	61	
LLL			Jul-76	Grab	138	
LLL			Jul-76	Grab	695	
LLL			Jul-76	Grab	259	
LLL			Jul-76	Grab	63	
LLL			Jul-76	Grab	67	
LLL			Jul-76	Grab	117	
LLL			Jul-76	Grab	114	
LLL			Jul-76	Grab	215	
LLL			Jul-76	Grab	64	
LLL			Jul-76	Grab	88	
LLL			Jul-76	Grab	103	
LLL			Jul-76	Grab	28	
LLL			Jul-76	Grab	85	
LLL			Jul-76	Grab	61	

Table 21: Raw Data for Sediments, 1972-1998

Location Code 1	Location Code 2	Depth inches	Sample Date	Method/ LOI code	U, Fluor ug/g	226 Ra Bq/g
LLL			Jul-76	Grab	66	
LLL			Jul-76	Grab	95	
LLL			Jul-76	Grab	85	
LLL			Jul-76	Grab	49	
LLL			Jul-76	Grab	29	
LLL			Jul-76	Grab	183	
LLL			Jul-76	Grab	92	
LLL			Jul-76	Grab	110	
LLL			Jul-76	Grab	69	
LLL			Jul-76	Grab	77	
LLL			Jul-76	Grab	61	
LLL			Jul-76	Grab	106	
LLL			Jul-76	Grab	52	
LLL			Jul-76	Grab	56	
LLL			Jul-76	Grab	381	
LLL			Jul-76	Grab	67	
LLL			Jul-76	Grab	56	
LLL			Jul-76	Grab	255	
LLL			Jul-76	Grab	68	
LLL			Jul-76	Grab	87	
LLL			Jul-76	Grab	52	
LLL			Jul-76	Grab	127	
LLL			Jul-76	Grab	107	
LLL			Jul-76	Grab	63	
LLL			Jul-76	Grab	64	
LLL			Jul-76	Grab	156	
LLL			Jul-76	Grab	600	
LLL			Jul-76	Grab	1000	
LLL			Jul-76	Grab	1936	
LLL	32A	0-2	**Mar-82**	Grab	2170	9.8
LLL	32B	0-2	Mar-82	Grab	3870	14.6
LLL	32C	0-2	Mar-82	Grab	1710	8.3
LLL-86-	1		**Jan-86**	Downhole		
LLL-86-	2		Jan-86	Downhole		
LLL-86-	3		Jan-86	Downhole		
LLL-87-	4		**Jan-87**	Downhole		
LLL-87-	5		Jan-87	Downhole		
LLL-87-	6		Jan-87	Downhole		
LLL-87-	7		Jan-87	Downhole		
LLL-87-	8		Jan-87	Downhole		
LLL-87-	9		Jan-87	Downhole		
LLL	W23	Whole	25-Feb-88		62.4	0.12

Table 21: Raw Data for Sediments, 1972-1998

Location Code 1	Location Code 2	Depth inches	Sample Date	Method/ LOI code	U, Fluor ug/g	226 Ra Bq/g
LLL	W24.1	Lower	25-Feb-88		105	0.18
LLL	W24.1	Upper	25-Feb-88		1590	1.47
LLL	W25	Whole	25-Feb-88		639	0.67
LLL	W25	Whole	25-Feb-88		62.3	0.12
LLL	LC7		21-Sep-89	166	412	0.65
LLL	LC8		21-Sep-89	167	370	0.18
LLL	W23		29-Aug-98		1300	1.3
LLL	W23.1		29-Aug-98		475	0.53
LLL	W24.1		29-Aug-98		1770	1.2
LLL	W25		29-Aug-98		2810	1.3
					384	2.5
					700	4.3
					28	0.08
					3870	14.6
88					74	20
PB			Aug-72	Grab		0.28
PB			Sep-74	Grab	4.0	
PB	33A		Mar-82	Grab		0.3
PB	33B		Mar-82	Grab	4.3	0.13
PB	33C		Mar-82	Grab	3.7	0.12
					4.0	0.2
					0.3	0.1
					3.7	0.1
					4.3	0.3
					3	4
HB			Aug-72	Grab		0.02
HB			Aug-72	Grab		0.11
HB			Aug-72	Grab		0.06
HB			Aug-72	Grab		0.12
PL			Aug-72	Grab		0.02

Table 22: Raw Data for Figure 17-19

Sampling Date	W15						W25					
	NO_3-N		NH_4-N		PO_4-P		NO_3-N		NH_4-N		PO_4-P	
	µM	N	µM	N	µM	N	µM	N	µM	N	uM	N
1975	0.25	13	18.21	13	1.39	5						
1976	1.08	12	77.38	12	2.95	6						
1977	1.82	6	130.12	6	7.50	1						
1978	3.40	3	242.96	3	28.84	1						
1979	1.00	4	71.25	4	8.84	2						
1980	0.64	2	45.36	2	4.37	2	1.29	2	7.50	2	2.79	2
1981	1.20	2	85.71	2	5.47	2	0.81	2	20.56	3	13.68	3
1982	0.16	2	11.43	2	1.11	2	0.81	2	38.89	2	0.84	2
1983												
1984	0.12	1	8.57	1	2.00	1	0.81	1	5.56	1	0.63	1
1985	0.05	1	3.57	1	1.26	1	1.45	1	5.56	1	0.53	1
1986												
1987												
1988												
1989							0.16	1	0.56	1	3.16	5
1990							0.16	1	1.67	1	1.61	1
1991							2.74	3	1.11	3	0.65	1
1992												
1993	23.00	1			0.42	1						
1994												
1995							25.81	1			0.47	2
1996											1.86	3
1997	9.02	2	644.29	2	0.75	2	56.45	1			0.53	4
1998	5.43	5	388.14	5	1.94	5						
1999	0.19	5	13.86	5	0.35	6						
2000	1.27	7	8.74	7	0.38	7	0.20	4	6.18	6	0.13	5

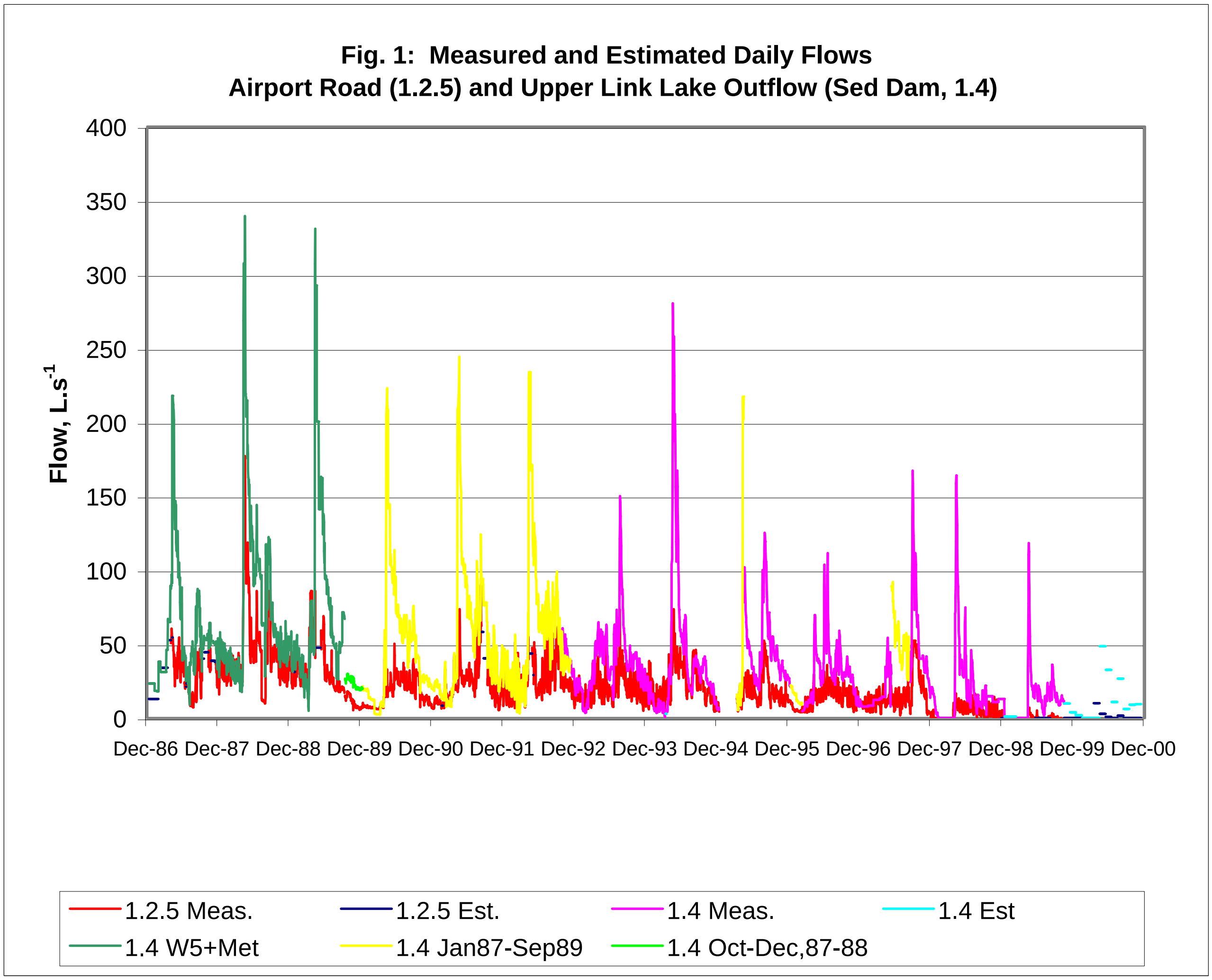


Fig. 1: Measured and Estimated Daily Flows
Airport Road (1.2.5) and Upper Link Lake Outflow (Sed Dam, 1.4)
Flow, L.s-1
400
350
300
250
200
150
100
50
0
Dec-86 Dec-87 Dec-88 Dec-89 Dec-90 Dec-91 Dec-92 Dec-93 Dec-94 Dec-95 Dec-96 Dec-97 Dec-98 Dec-99 Dec-00
1.2.5 Meas.
1.2.5 Est.
1.4 Meas.
1.4 Est
1.4 W5+Met
1.4 Jan87-Sep89
1.4 Oct-Dec,87-88

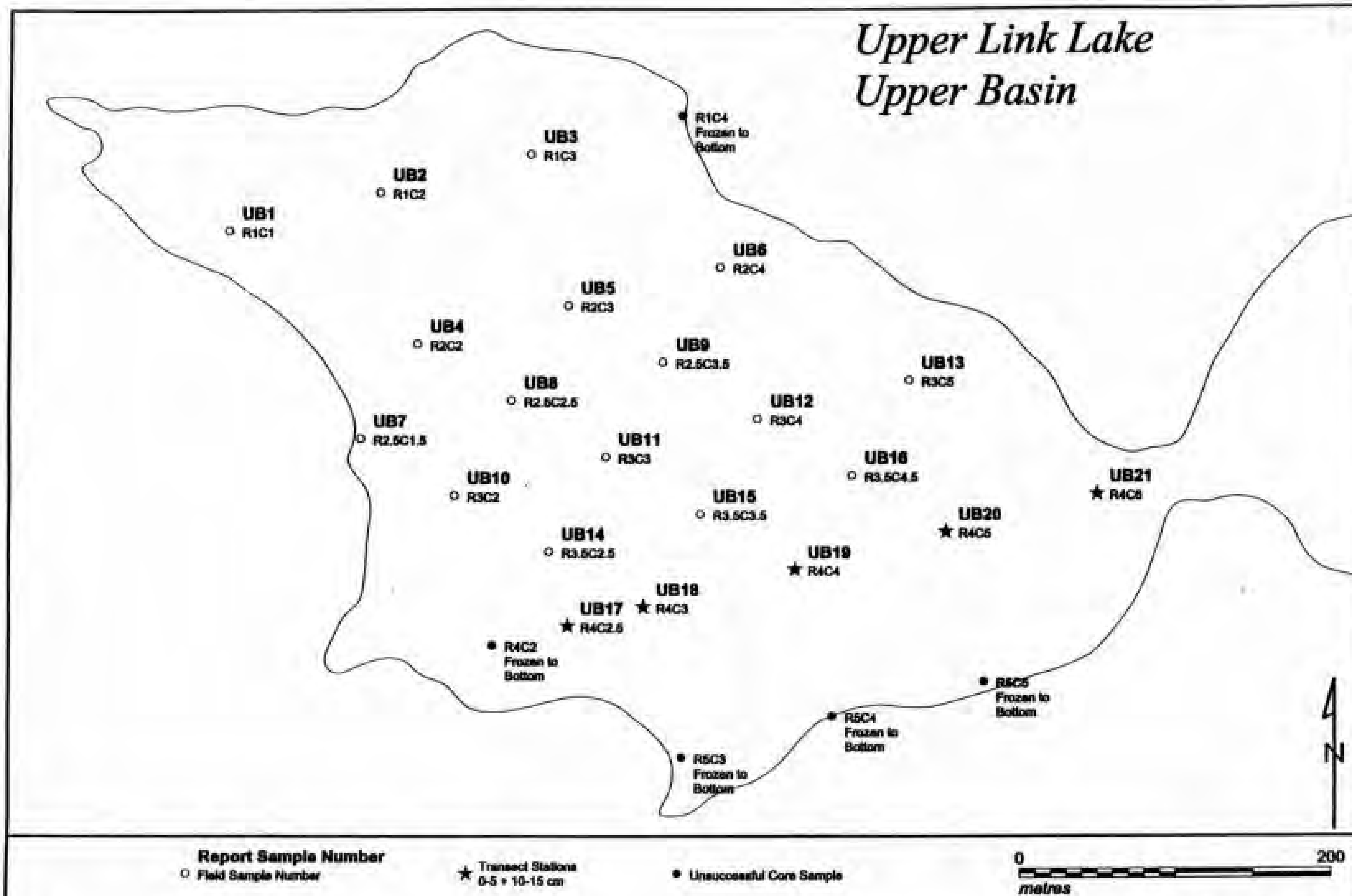


Figure 2.1-1 Sampling grid locations for Upper Link Lake, upper basin, March 1999.

Conor Pacific
Environmental Technologies Inc.

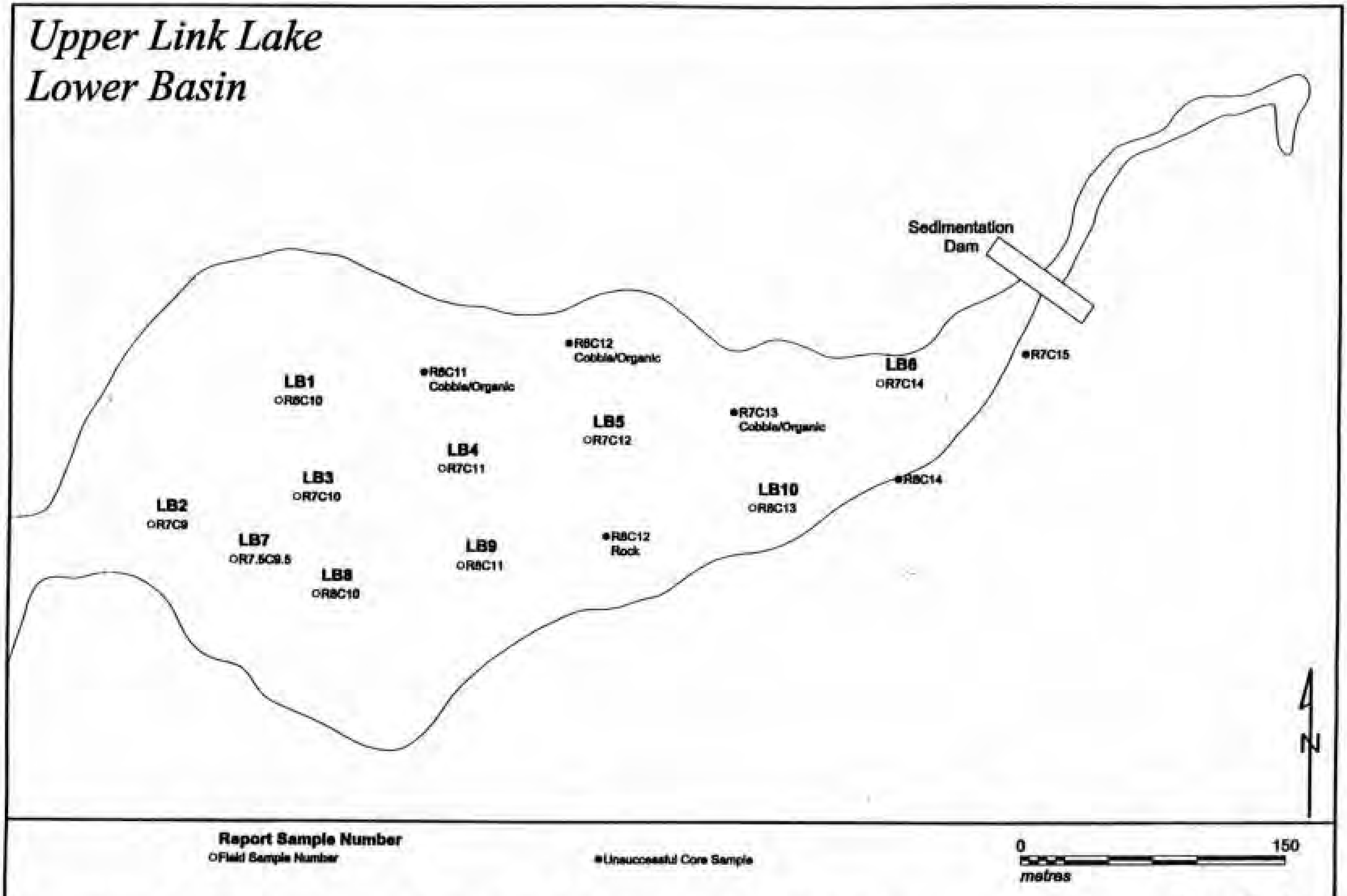


Figure 2.1-2 Sampling grid locations for Upper Link Lake, lower basin, March 1999.

Conor Pacific
Environmental Technologies Inc.

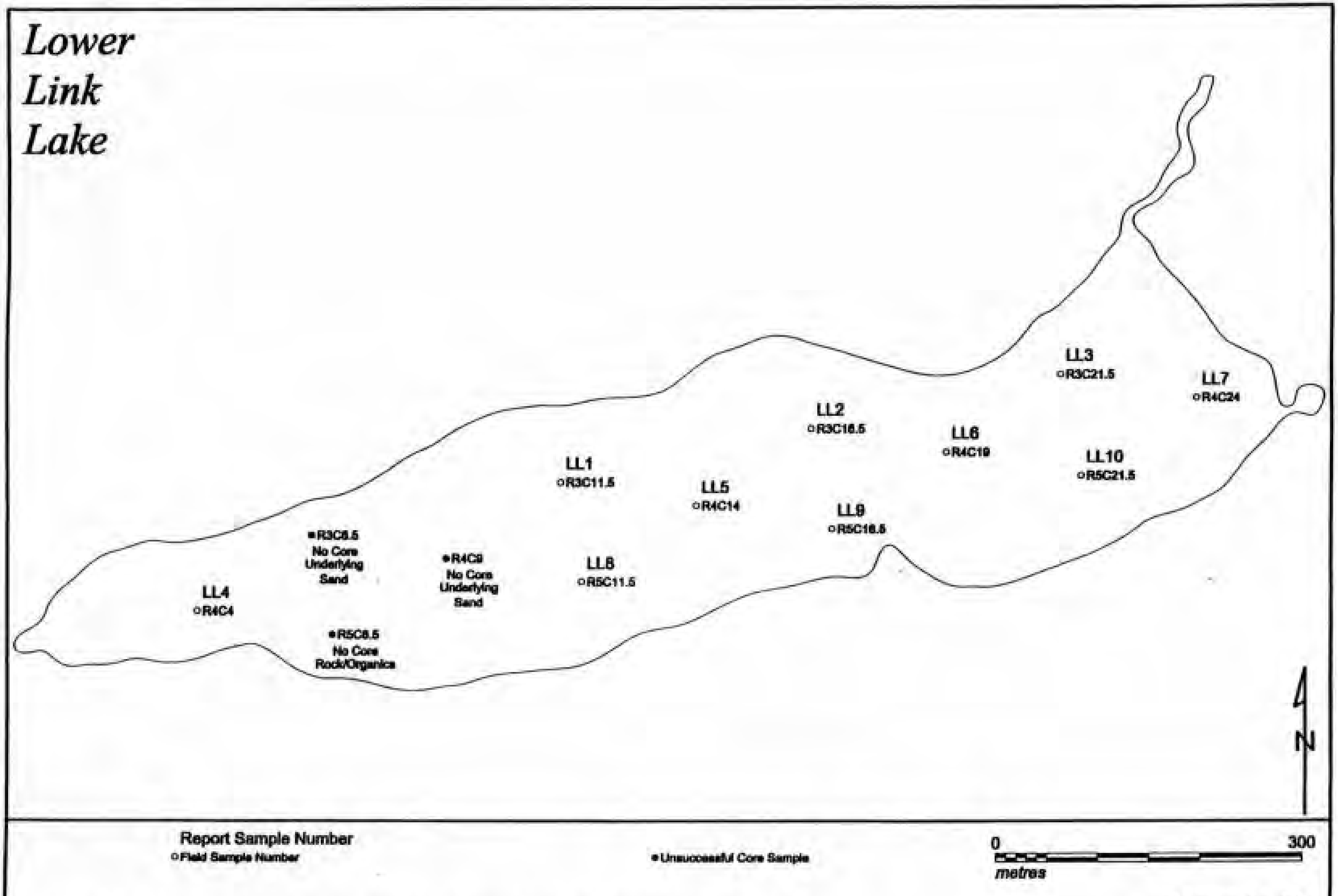


Figure 2.1-3 Sampling grid locations for Lower Link Lake, March 1999.

Methods for core samples: physical and analytical

Additional core sections were collected from Upper Link Lake upper basin stations along the the grid transect R4 that passes from the inlet, through the deepest section of the lake and ends just north of the narrows between the upper and lower basins. These five cores were sectioned to a depth of 30 cm at 5 cm increments. Sections 0-5 cm and 10-15 cm were submitted for analyses while the remaining sub-samples were archived.

Physical	Analytical
core description and photograph	total organic carbon
particle size (>63 µm <)	sulphate
% moisture	ICP-AES Metals
	Arsenic
	Uranium

APPENDIX 2

LITERATURE REVIEW ON RADIUM

By:

M. Ilin and M. Kalin

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1.0 WATER

1.1 Radium migration in surface water

Natural concentrations of ^{226}Ra in surface water tend to be rather low, varying basically between 0.001 Bq/L and 0.35 Bq/L (Table 1). Radium-containing waters from geological sources and runoff from uranium mining and milling in Germany has reported concentrations of 4.3 Bq/L and as high as 57.4 Bq/L.

In 1982, Beneš noted that seven factors and processes affect ^{226}Ra:

1. Physico-chemical forms of radium in surface water and dynamics of their changes
2. Composition of surface water
3. Adsorption of dissolved radium on suspended solids and bottom sediments
4. Co-precipitation of radium with solids formed in water
5. Sedimentation of particulate radium and resuspension of bottom sediments
6. Dissolution and desorption of radium from suspended solids and bottom sediments
7. Biological uptake and transport.

1.2 Physical-chemical forms of radium

The physical-chemical forms of the radionuclide in the aquatic environment is a primary factor determining ^{226}Ra transport in the biosphere (Beneš, 1982). Radium is the heaviest element of the alkaline earths (the second group, which includes calcium and strontium). It is the chemical analog of barium. In water, radium exists primarily as a divalent ion (Ra^{2+}) and has chemical properties that are similar to barium, calcium and strontium. However, chemical radium compounds have lower solubility than barium compounds (Titaeva, 1992), and this solubility in water generally increases with increased pH levels (Langmuir and Riese, 1985).

Table 1: Summary of ^{226}Ra Concentrations in Water

Location	Number of samples	Mean, Bq/L	Range, Bq/L	Reference
SURFACE WATER				
Canada	854	0.02	<0.001-0.35	1
St. Lawrence and Great Lakes Lowlands (creeks)		<0.04		1
Canadian Shield -	456	0.008	0-0.23	1
CRNL area (lake)				
Prairies	14	0.04	0.008-0.13	1
Athabasca	286	0.015	<0.005-0.35	1
Northern Saskatchewan	20	0.53	0.01-4.3	2
Germany	526		<0.001-57.4	3
Italy (4 lakes)		0.0006	0.0002-0.0009	4
GROUNDWATER				
Canada			<0.001-0.3	1
St. Lawrence and Great			<0.01-0.3	1
Lakes Lowlands				
Germany	526		<0.007-0.059	3
USA	990	0.034		5

1. Buchnea and van der Vooren, 1985
2. Swanson, 1985
3. Schuttelkopf and Kiefer, 1982
4. De Bortoli and Gaglione, 1972
5. Longtin, 1988

Radium favours co-ordination with oxygen donors and does not usually form complex ionic species (Kabata-Pendias, Pendias, 1984). Radium nitrate, chloride, and iodate are very soluble in water (Ames and Rai, 1978). The only inorganic ligands, which could form significantly abundant complexes with radium in fresh waters, are sulphates and carbonates that have relatively low solubility.

Beneš (1982) suggested that the abundance of $RaSO_4$ complex (ion pair) could be significant (>5%) in waters containing more than 43 mg/L free sulphates. Radium sulphate could not precipitate unless the radium concentration exceeds 89,000 Bq/L. Carbonate complexes could be significant only in waters having high pH values or high carbonate concentration, for instance pH>10.2 and total carbonate >0.001M.

The water chemistry data for Link Lake show the presence of sulphate (average for S ranges from 6 mg/L to 14 mg/L) and HCO_3^- (average ranges from 48 - 59 mg/L), see Table 5a in the main text. These values are similar to the concentrations noted by Beneš above. However, it is unlikely that radium sulphate and carbonate complexes would ever be significantly presented in Rabbit Lake drainage basin due to the pH (average from 6.7 to 7.9) and the ^{226}Ra concentration (average ranges form 0.1 to 0.4 Bq/L).

Other dissolved components in natural waters capable of binding radium are natural organic substances. It has been shown that humic substances could form complexes or colloids associated with alkaline earths (Sillen and Martell, 1964).

Two basic forms of radium have to be considered, dissolved or suspended. The ratio of dissolved form to particulate form of radium in surface waters varies considerably over time and from site to site. Values from 0.01 to 24 have been reported (Kurokawa and Kurosawa, 1980; Beneš, 1982).

^{226}Ra adsorption on suspended solids and bottom sediments largely determines the ratio of the dissolved to particulate forms of the radionuclide in the water column. Stanek (1973) and

Mansfeld (1977) found that sediments adsorbed more than 90% of the 'equilibrium' amount of radium during the first 10 min -2 h of contact with contaminated water. Several authors reported a more or less rapid decrease of dissolved radium in river water with increasing distance from the point of discharge of the radionuclide (Tsivoglou et al, 1960; Kirchmann et al, 1973; De Jesus et al, 1980). This decrease was mainly due to the adsorption on solid particles suspended in river water. The concentration of ^{226}Ra dissolved in mine drainage waters discharged into a dry river bed was found to decrease rapidly along the bed due to strong adsorption onto the river bed sediments (USEPA, 1975; USEPA, 1979). However, Mansfeld (1977) found that for each sediment a certain maximum percentage of radium absorption exists which could not be exceeded by further decreasing the liquid/solid ratio. The author concluded that the effect of the liquid/solid ratio on radium absorption by sediments is not simple and the distribution coefficient is not a suitable parameter for characterizing adsorption properties of natural sediments for radium.

The distribution of radium between water and sediments is a function of several factors. All authors agree that the radium adsorption is predetermined by particle size of the studied sediments (Parsont, 1967; Mansfeld, 1977; Sebesta et al., 1978). They noted that radium is concentrated mainly in the fine fraction of sediments in accordance with the common rule that adsorption per gram of sediment increases with increasing specific surface area of adsorbent. The sorption processes are surface reactions, and the adsorption characteristics of sediment may therefore in most cases be attributed to its content of fines. Beneš (1982) compared the adsorption of radium on ferric hydroxide, Kaolinite, quartz sand and silica over a broad range of conditions and concluded that the adsorption increases in the order Kaolinite > ferric hydroxide > quartz sand > silica at pH 6 and ferric hydroxide > Kaolinite > quartz sand > silica at pH 8.

The clay minerals Illite and Montmorillonite have been found to be very effective in adsorbing trace elements, Kaolinite being less so (Jensen, 1980). The author concluded that since most Danish sediments contain several per cent of these clay minerals, they should be expected to be very efficient adsorbents for trace elements (e.g. radium). These clay minerals (i.e. Illite and Kaolinite) are present in the Rabbit Lake drainage basin, due to the geological alteration process (Jones, 1979).

In turn, literature data on ^{226}Ra adsorption in relation to the sediment organic content are contradictory. Parsont (1967), during a study of the radium distribution in an aquatic environment, found a direct relationship between the radionuclide concentration and the organic content of sediments. Analysis of ^{226}Ra concentration and L. O. I. in Link Lake sediments also indicates that the radionuclide concentration correlates well with organic content. Moreover, this dependence looks to be very similar to other lakes of the Rabbit Lake drainage basin examined in 1985-1993 (Figure 15 a and 15 b in the main text). In contrast, Mansfeld (1977) concluded that no significant correlation exists between sediment ability to absorb radium and its organic matter content, based on examining a set of 25 river sediment samples. His conclusion was made based on experiments with high radium concentrations in solution (740 Bq/L), likely exceeding the adsorption capacity of the sediment.

Radium adsorption on lake sediments can be significantly affected by the lake water chemistry. For instance, adsorption of the radionuclide on ferric hydroxide strongly depends on the pH in the pH region 6-8 (Benes, 1982). The highest radium adsorption on lake sediments from lake water was found to occur when pH was between 3-5, adjusted with hydrochloric acid or ammonium hydroxide, while significantly lower adsorption was observed towards the extreme values of pH (Stanek, 1973). However, Mansfeld (1977) did not find any substantial effect of pH on radium adsorption by sediments in a pH range of 5-7.

1.3 Co-precipitation, sedimentation and resuspension processes

Radium itself cannot give rise to a separate solid phase in surface waters but it can co-precipitate with suitable solids. Pradel (1976) concluded that co-precipitation with ferric hydroxide can account for a rapid decrease in the concentration of dissolved radium in river water receiving untreated mine drainage water, containing ferrous ions. Sebesta et al (1980) found that the co-precipitation of radium with barium sulphate could continue in a wastewater, resulting in significant changes in the abundance of particulate forms of radium with time.

Tsivoglou (1963) has suggested that radium content in sediments is a good indicator of ^{226}Ra concentration in water because the radium content in river bottom sediments is strongly enhanced downstream from the point of the radium-containing discharge into the river. The finely dispersed fractions of sediments have been found to be suitable for this purpose (Mansfeld and Hanslik, 1980). Several authors have described a pronounced decrease in the radium content of river bottom sediments with distance from the discharge point (Parsont, 1967; Kirchmann et al, 1973; Sebesta et al, 1978). The character of the decrease generally depends on the river flow rate.

The sedimentation and resuspension processes can lead to considerable changes in radium concentrations and radium forms in water. The changes depend on the velocity and turbulence of water flow. Several authors have described a decrease in total radium concentration along a stream, which could be ascribed to the sedimentation of particulate radium (Parsont, 1967; Kurokawa and Kurosawa, 1980; Sebesta et al., 1980).

Resuspension and transportation of sediments containing radium have been reported in several instances. This process is particularly important in arid areas where radium is concentrated in dry sediments during dry periods and resuspended and transported in floods (Williams, 1976; USEPA, 1979).

In water reservoirs, compared with streams, the relative importance of sedimentation and resuspension processes is entirely shifted in favour of sedimentation. This process can be strongly enhanced due to absence of currents. The average ratio of dissolved/particulate forms of radium will be higher in reservoirs than in streams. Marple and Zettwoog (1980)

found that this ratio was more than three times higher in a water reservoir than in the river feeding the reservoir.

The measured distribution of four isotopes of Ra along the estuary of the Bega River is governed by their rate of loss from the sediments, their advection along the estuary resulting from river discharge into the estuary's head, tidal mixing, and radioactive decay (Webster et al, 1994).

Schuttelkopf and Kiefer (1982) found that elevated radium concentrations were measured in German surface waters in four circumstances: following a long period of dryness, at the source, in brooks mostly frozen over during the winter season, or where there was contact with natural uranium ores. Variation in ^{226}Ra concentration along some brooks was inversely proportional to their flow rates.

Regarding the influence of flow rate on radionuclide mobility, it is important to note that several authors proposed to use this factor as one of the major parameters of radionuclide migration for terrestrial ecosystems. Evaluation of flow rate for Rabbit Lake basin indicates that dependence between radium concentration and flow rate exists (Table 2, Figure 1).

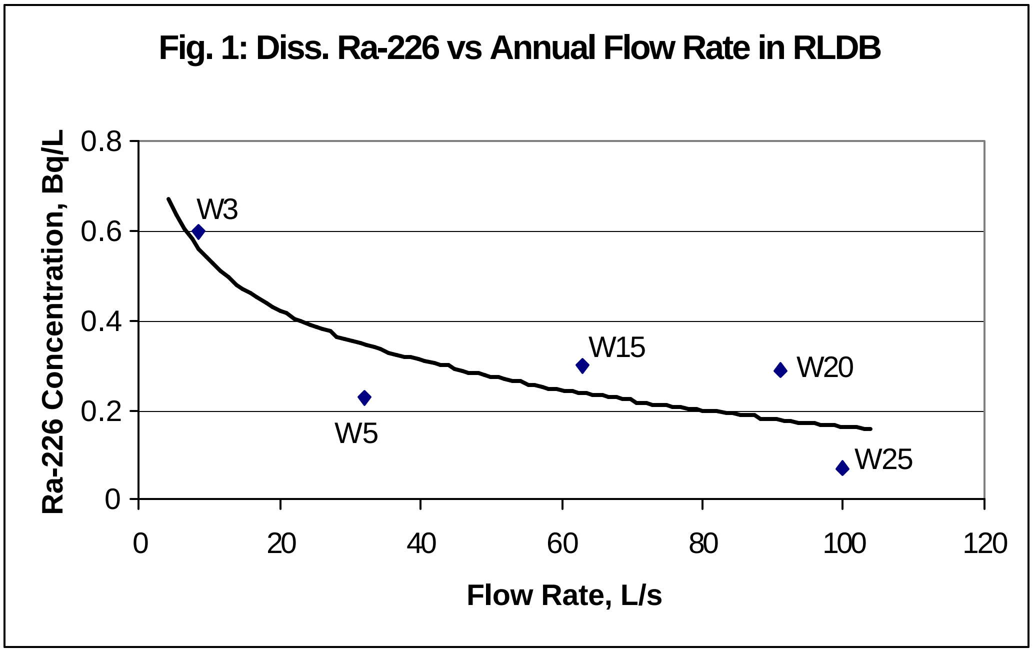
1.4 Dissolution and desorption

Beneš (1982) noted that, according to common principles, radium could be at least partially released to the water phase from suspended solids and bottom sediments due to a change in pore water composition. The release may proceed by total or partial dissolution of solids containing radium and by desorption of radium. This effect is difficult to detect as the decrease in abundance of particulate forms of radium is usually ascribed to their sedimentation.

Release of Ra from undisturbed bottom sediments is diffusion-controlled and probably slow. Sebesta et al (1978) have found that the concentration of dissolved radium in the river water depends little on flow rate, except for the lowest values of flow rate. It has been found that only 10% of radium deposited in sediments would go back into solution in flood water (USEPA, 1979). Experimental results by Legeleux and Reyss (1996) clearly demonstrate that oceanic settling particles acquire their radium and, by inference, their barium, in the upper water column and that there is very little exchange with the dissolved phase as they settle to the bottom.

Table 2: Flow, Dissolved and Total Radium for Selected Locations in Link Lake

Location	Annual Flow, L/s	Dissolved Ra, Bq/L	Total Ra, Bq/L
W3	8.3	0.6	0.65
W5	32	0.23	0.28
W9		0.14	0.75
W14	55		
W15	63	0.3	0.36
W20	91	0.29	0.25
W25	100	0.07	0.09



2.0 SOIL (SEDIMENT)

Radium concentrations in sediments and soils usually are very low (Table 3). Stegnar and Kobal (1982), studying uptake and distribution of radium in the aquatic food chain in uranium mining area, found that values of ^{226}Ra in sediments were approximately four orders of magnitude higher than in water. Swanson (1985) has shown significantly elevated levels of radium in sediments of Northern Saskatchewan aquatic system affected by U mill effluents. ^{226}Ra sediment concentrations at contaminated sites were 2-7 times higher than at control lakes which did not receive runoff from any operations.

Concentrations of ^{226}Ra in soil have been reported by Bowen (1979) to be 0.8 ng/kg (30 Bq/kg). Taskayev et al (1978) found that ^{226}Ra concentrations in Russian soils vary from 36 to 351 pg/g (1.3-13 Bq/g). In turn, Pokarzhevskii and Krivolutzkii (1997) reported that concentrations of ^{226}Ra in different soils, plants and animals in the former USSR are similar to the background level. For soils it fluctuates in range of 18.3-55 Bq/kg, for plants between 3.7 and 62.1 Bq/kg, and for animals from 0.73 to 55 Bq/kg.

Analysis of 1440 samples of soil collected across Greece have shown that the natural radioactivity content of surface soils is rather low; for ^{226}Ra: 25±19 Bq/kg and for ^{228}Ra: 21±16 Bq/kg (Anagnostakis et al, 1996). Schuttelkopf and Kiefer (1982) found that the maximum frequency of the radionuclide concentrations in soil samples occurred between 2 and 5 pCi/g (74-185 Bq/kg). In vertical soil profiles, ^{226}Ra was firmly bound in the upper soil strata.

A study of ^{226}Ra, ^{137}Cs and ^{40}K content in Mexican soils and in land snails (Gaso et al, 1995) showed ^{226}Ra values ranging from 88 to 19979 Bq/kg (dry wt.) depending on the sampling region. For the snails, radium levels in shell samples were elevated by a factor of 9 at uranium ore site samples, compared with reference samples collected 100 km away.

Ek and Ek (1996) reported that ^{226}Ra may be present in a weathered soil in two ways: first, in primary uranium minerals, and second, precipitated on the surface of the mineral particles. The proportions may vary depending on the type of rock material, weathering conditions, and permeability of the soil. The authors concluded that this is of great importance to the process of radon emanation, since it is much higher from radium that is adsorbed on the surface of soil particles compared to radium bound in primary uranium minerals.

In study of limestone Karst soils of the Jura Mountains and of the mountains in the central part of Switzerland, Von Gunten et al (1996) found an enrichment up to a factor 20 of ^{226}Ra with respect to the activities of its progenitor ^{238}U. Thus, a significant radioactive disequilibrium exists between ^{238}U and ^{226}Ra. Uranium, contained within calcite, is released during weathering and migrates as stable uranyl carbonate complexes through the soil column. In contrast, its decay product ^{226}Ra is strongly sorbed to soil particles, and/or forms insoluble compounds that become enriched in the soil over time.

Table 3: Summary of Ra-226 Concentrations in Soils and Sediments

Location	Number of samples	Mean Bq/g	Range Bq/g	Reference
SEDIMENT				
Canada	189	0.06	0.01-0.8	1
Rockies - Okanagan, B.C.	21	0.01		1
Shield - Saskatchewan	24	0.07		1
Athabasca	144	0.09	<0.01-0.8	1
Northern Saskatchewan	72	0.45	0.014-0.95	2
SOIL				
Russia			1.3-13	3
Former USSR			0.018-0.055	4
Greece	1440		0.006-0.044	5
Menzenschwand, Germany			0.044-0.204	6
Baden-Baden, Germany			0.022-4.9	6
Wittichen, Germany			0.007-20.7	6
Mexico			0.088-20	7
USA	356	0.041		8
Northern Italy		0.027	0.003-0.14	9
Canada		0.057	0.005-1.946	10

1. Buchnea and van der Vooren, 1985
2. Swanson, 1985
3. Taskaev et al, 1978
4. Pokarzhevskii and Krivolutzkii, 1997
5. Anagnostakis et al, 1996
6. Schuttelkopf and Kiefer, 1982
7. Gaso et al, 1985
8. Myrick et al, 1981
9. De Bortoli and Gaglione, 1972
10. Sheard et al, 1988

2.1 Soil properties

Since radium valence state in soil is Ra^{2+}, it is soluble enough to be sorbed by plants from soil solution. However, soil reactions, which affect the retention and solubility, will directly affect the bioavailability of the radionuclide. Analysing ^{226}Ra behaviour in soil, many authors note that effects of soil properties, such as pH, texture, and organic matter content on the bioavailability of Ra need additional research. Sometimes, these effects may be deduced by examining results of plant uptake experiments where the soil properties have been reported.

A study of the uptake of ^{226}Ra by cultivated crop plants in uncontaminated regions of purely natural radioactivity have shown that in farm soils analysed, the total radium activity concentration ranged from 14.4-79.1 Bq/kg and the exchangeable fraction constituted 7.1-27.8% of the total radium content (Sam and Eriksson, 1995). Taskayev et al (1978) found that ^{226}Ra mobility in Russian soils decreases under very acid conditions. Rusanova (1962) has found that the amount of exchangeable forms of ^{226}Ra in soils is inversely related to the amount of mobile forms of Ca and Mg, which increase with soil pH. In turn, Mikhailovskaya et al (1996) noted that the bioavailability of uranium and radium brought to the surface with ore particles was found to be lower than that in natural biogeocenoses with undisturbed soil cover.

3.0 VEGETATION

There are numerous experimental data regarding radium concentrations in different kinds and types of terrestrial vegetation (Table 4). Bowen (1979) has found that in vegetation ^{226}Ra concentrations ranged from 0.03 to 1.6 ng/kg (1-60 Bq/kg). Pokarzhevskii and Krivolutzkii (1997) have shown that ^{226}Ra concentrations ranged from 0.7-23 Bq/kg and 0.1-7.6 Bq/kg dry weight for vegetative and edible crop parts, respectively. Marple and Potter (1982) found that radium activities of native and naturalized plant species growing at inactive uranium mill sites were significantly greater than that of local plants (185-13600 Bq/kg and 37 Bq/kg respectively). This was shown on both covered and uncovered tailings and on local soils with elevated radium content. Similar values were obtained in two species (grass *Sporobolus* *airoides* and shrub *Atriplex canescens*) grown on soil-covered tailings in a greenhouse. It is concluded that radium is adsorbed and translocated to terrestrial plants through the roots. The factors controlling the radium uptake will be discussed below.

Generally the concentrations of radium in plants are related to the mobility of the nuclide in the soil (Rusanova, 1964), which in turn depends on soil characteristics. Kalin and Sharma (1982) concluded that uptake of ^{226}Ra by *Typha latifolia* cannot be explained by total radionuclide concentrations in tailings and soils alone.

Million et al (1994) have shown the dependence of plant ^{226}Ra concentrations on the sand/clay ratio (SCR) in reclaimed clay and sand tailings from phosphate mining. The plant ^{226}Ra concentration tended to be higher in the 4:1 than in the 2:1 SCR mix and depended on the crop and the season. Organic amendments and phosphogypsum had

no effect on the ^{226}Ra concentration in vegetables and alfalfa. The results indicated that the ^{226}Ra/Ca ratio in plant tissues ranged from 0.85 to 2.13 kBq ^{226}Ra/kg Ca and decreased with increasing plant ^{226}Ra. Wide differences in plant ^{226}Ra concentration were related more to differences in plant Ca levels than to soil factors.

The radium accumulation and ad/absorption processes in wetland and aquatic vegetation are still poorly understood mainly due to the relatively low concentrations of the radionuclide in water and significant differences in mechanism of radium uptake.

Table 4: Summary of Ra-226 Concentrations in Vegetation

Location	# of samples	Mean Bq/kg, dry	Range Bq/kg, dry	Reference
AQUATIC VEGETATION				
Canada	173	0.07	<0.01-3.9	1
MACROPHYTES				
Athabasca - Collins B.	50	0.18	0-3.9	1
Athabaska - Dawn L.	12	0.07		1
Athabaska - Midwest	9	0.02	0-0.07	1
Athabaska - McClean L.	4	0.16	0-0.22	1
Rockies - B. C.- Okanagan	6	0.01		1
PLANKTON				
Shield - Ontario - Chalk R.	72	0.07	0-0.4	1
BENTHOS				
Athabaska - Collins B.	20	0.08	0-0.37	1
TERRESTRIAL VEGETATION				
Canada	193	0.009	<0.001-0.1	1
CONIFERS				
Athabasca	9	0.017	<0.001-0.0025	1
Shield (Churchill R.)	9	0.053	0-0.024	1
TREES				
Rockies - B. C. - Kelowna	31	0.002		1
SHRUBS				
Athabasca	58	0.008	0-0.03	1
Shield (Churchill R.)	24	0.03	0-0.1	1
Athabasca	16	0.07	0-0.1	1
Rockies - B. C. - Kelowna	17	0.006		1
GRASSES, SEDGES				
Athabasca	5	0.003	0-0.008	1
GRASSES				
Athabasca	4	0.09	0-0.15	1
Rockies - B. C. - Kelowna	20	0.007		1
UPLAND VEGETATION				
Northern Saskatchewan		0.017	0.0002-0.61	2
TERRESTRIAL PLANTS				
Former USSR			3.7-62.1	3
GRASS, HAY				
Germany			0.259-18.5	4

1. Buchnea and van der Vooren, 1985
2. Sheard et al, 1988
3. Pokarzhevskii and Krivolutzkii, 1997
4. Schuttelkopf and Kiefer, 1982

3.1 Mechanism of Radium Uptake

From the chemical properties of elements, it can be predicted that radium may be taken up by cells via the same mechanism as calcium and the other alkaline earth elements (Mg, Sr, Ba). If this is the case, then there should be evidence of radium uptake across membranes and/or its distribution within tissues, which can be correlated with that of calcium.

This appears to be the case for animals. In man, for example, 99% of the body calcium is distributed in the skeleton. The relative proportions of other elements are: Sr 99%, Ba 91%, P 90%, Ra 87%, Mg 58%. All other natural elements have lower proportions in the skeleton (ICRP, 1975). Fish have a high proportion of body radium in the skeleton (Anderson et al., 1963); freshwater mussels accumulate Ra together with Ca, Mg, Ba, Mn, Fe and P in granules that are dispersed throughout their body. On the whole-body basis, the radium concentration is positively correlated with Ca and Ba concentrations, but is not correlated with the Mg concentration (Williams, 1982).

For plants, there appears to be a somewhat different situation. However, there is less documentation for plants compared to animals. Among 40 samples of aquatic and semi-aquatic macrophytes representing 19 species, Williams (1982) found that the Ra distribution was not significantly correlated with that of Ca, Mg, Na, Cu, Zn, Fe or S but was positively correlated with that of Mn; among 18 samples of five organs (lamina, petiole, fruit, peduncle, rhizome), from a single species, *Nymphaea gigantea*, Ra distribution was not correlated with that of Ca, Mg, Na, Zn, U or S but was positively correlated with that of Cu, Fe and Mn and negatively correlated with that of K and P. For terrestrial plants, the data of Smith (1971 a, b) show that the distribution of Ra is least like that of Ca among the alkaline earth elements, but any similarity between radium and other elements is still open to question.

Another way of investigating the mechanism of radium uptake is to examine its transfer through food chains. If radium uptake is proportional to calcium uptake in the food chain, then the observed ratio (Ra:Ca ratio in one trophic level / Ra:Ca ratio in the preceding trophic level) should be unity. However, if cells can distinguish Ra from Ca, then the observed ratio ought to be less than unity, because calcium is a major nutrient and Ra is a nonnutrient. In terrestrial soil-plant transfer, the observed ratio ranges from 0.05 (Kichman et al., 1968) to 0.5 (Bhujbal et al., 1971). In wetland plants, Williams (1982) found an observed ratio of 0.06. In a summary on radium in the human food chain, Williams (1981) found that among 9 generalized trophic-level transfers in the aquatic links of the chain, 8 showed a decrease in concentration; this supports the general conclusion that plant and animal cells are able to discriminate against radium relative to calcium.

When this observation is taken in conjunction with the previous observation in animals, it must be concluded that radium may be taken up and metabolized in the same way as calcium; but there is a discrimination mechanism in plants for excluding radium which operates with an efficiency ranging from ~ 50 to 98%.

Havlik (1971) found that algae fall into two groups with regard to radium uptake behaviour; one group responds with a constant increase in radium concentration with time, achieving equilibrium in about 3 days; the other group shows a maximum uptake after 1 day followed by a decline, lasting about 5 days, to equilibrium. The rapid uptake and subsequent decline in the adsorption dominant process can be explained by a rapid surface exchange mechanism which reverses as the radium concentration in water declines as a result of uptake by the algae. The radium concentration in water varied inversely with that in the algae even in continuous culture experiments (Havlik and Robertson, 1971). They concluded that a full explanation of radium uptake in algae therefore requires a two-compartment rather than a single-compartment model.

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APPENDIX 3

Statistical Analysis of Water Quality

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Statistical Analysis of Water Quality

1.0 Available Data

Water chemistry has been monitored at twenty-three locations at the Rabbit Lake mining area (W1-W25). Extensive sampling occured at eight of these locations (W3-5, W9, W14-15, W20 and W25) while limited numbers of samples are available for all other locations. This analysis has focused on these routinely monitored stations.

Water quality monitoring at the routinely monitored locations was initiated at different times, with W3, W4 and W20 in early 1980, and the other five during 1985-1988. The monitoring data thus cover at least for ten years. Samples were collected typically at monthly intervals, with varying percentages of data missing at different locations, years and parameters. A total of **1122** samples were included in this analysis, which include both Boojum collected data and Cameco collected data. Table 1 describes the main data set, including the Cameco sample locations descriptions (Stations 1.x).

Table 1: Sampling dates and total number of samples for all stations

Stations	Description	Sampling Period		Samples
		From	to	
W3	1.1 North drainage ditch	18-Apr-80	4-Sep-98	199
W4	1.2 south drainage ditch	18-Apr-80	4-Sep-98	179
W5	1.2.5 Airport road	21-Jan-85	5-Sep-97	190
W9	ULL inflow	30-Jul-88	8-Sep-98	89
W14	1.4.1 ULL at narrows	17-Nov-86	8-Sep-98	126
W15	1.4 sedimentation dam	18-Jan-87	8-Sep-98	134
W20	1.413 bad, beaver house	01-Feb-88	8-Sep-98	110
W25	1.4.5 LLL outflow over..	23-Mar-80	8-Sep-98	141

Water quality analysis has concentrated on major contaminants ,^{226}Ra and Uranium, and some closely related parameters, which influence contaminant behaviour, such as pH, Temperature and Total Suspended Solid (TSS) although many other chemical quality parameters were determined from time to time. The following analysis has focused on long-term changes in ^{226}Ra-total, Uranium-total in relation to pH, TSS and temperature.

2.0 Data Characteristics

The basic statistics of these parameters is shown at Table 2. Data missing are usually lower than 15%, an acceptable limit recommended for long-term monitoring programs (Hirsch et al. 1991), except for pH at W9 (33.7%) and W20 (27.5%). Temperature records are only available at W4, but it was believed to be generally applicable for all other locations, although subtle differences are to be expected.

The distribution of the variables was briefly diagnosed by examining the ratio between standard deviation and average (Elliot 1983). If Standard Deviation /Average is smaller than 0.25, the data series is likely to be normal distributed (Elliot 1983). Otherwise, it may fit Poisson, Random, or Binomial distributions. Of the five variables examined here, only pH appears to fit normality.

Detailed distributions tests are time-consuming and not our major concern here. However, whenever applicable, non-parametric or other distribution-insensitive statistics were employed.

It should be emphasised that the statistics of four variables in Table 2 only provide a brief description of data series for each location. Because different sampling dates, frequencies, and periods are covered at the locations, the statistics cannot be directly compared. When significance tests were carried out, two data series were compared were carefully selected to match the sampling time. This process was the most time consuming aspect, but of most importance, to prepare a valid data set for statistical analysis for all eight locations.

3.0 Objectives

- To determine the long-term and seasonal trends of ^{226}Ra and Uranium and to determine if they associated with to pH and temperature.
- To determine the spatial variation over the sampling locations in these two contaminants which are considered as dissolved or passing 0.45 um filter and their association with TSS.

4.0 Data Analysis

A variety of statistical techniques, from simple linear correlation to complex multivariate approaches, are available for long-term trend analysis of water quality. Since these methods have different assumptions, such as data normality and/or linear relationships, the characteristics of the data set were assessed before suitable analysis methods were chosen.

4.1 Data Normality

Detailed distribution tests are time-consuming and not the major concern here and so the distribution of variables was diagnosed only briefly, by examining the ratio between the standard deviation and the average. If the standard deviation to average ratio is below 0.25, the data series is likely to be normally distributed (Elliot 1983); otherwise, it may fit a Poisson, Random, or Binomial distribution. Of the five variables examined here, only pH appeared to be distributed normally, but pH already resulted from -log [H^+].
A normal distribution is an assumption for many statistics, particularly for significance tests, but heterogeneity is the nature of environmental systems and non-normal distributions and

non-linear relationships are common. In particular, when significant spatial and temporal gradients exist, data series will not follow normality. Data transformation and standardization can improve data approximation to normality, but the environmental implications of such manipulations are complex and generally unjustified. For example, log transformation always reduces the weight of higher concentrations, but contaminants show toxicity only at certain high levels. Whenever applicable, non-parametric or other distribution-insensitive statistics were employed.

4.2 Wilcoxon Signed Rank Test

In this analysis, we used Wilcoxon Signed Rank Test (Zar 1984) to examine the differences between locations. This is the non-parametric equivalent of a Paired T-test. Comparing samples collected on the same date removed the daily, weekly or monthly temporal effects and this test is robust with respect to sampling and measuring errors, as it compares the paired samples only qualitatively (which one is higher, ignoring by how much).

The Wilcoxon Test was applied only to the last five years for ^{226}Ra and U data because: i) the data sets at different locations cover varying lengths of sampling period and only a comparison of the same period makes sense and; ii) changes in the past few years are our major concern. The Wilcoxon Test involves the difference in distribution, rather than average, so averages were not reported here or below.

4.3 Trend Analysis

For long-term trend analysis, simple Pearson=s Correlation appeared to fit the time-concentration curves best in most cases. Seasonal Kendall Test, another commonly used method for trend analysis (Hirsch et al. 1991), requires equal sampling intervals, which the present data set does not have. Also, Systat (8.0), used in this analysis, gives only the correlation coefficient (Tau-b), without reporting the probability, which makes it impossible to judge the significance of the test. Auto-correlation was used to detect and quantify possible seasonality in the water quality variables.

4.4 Auto-correlation

Auto-correlation measures whether two objects closer in time or space are more similar than more distant objects, a phenomenon common in environmental and ecological systems. For example, when two plant samples are collected from adjacent areas, they are usually more similar in species composition and relative abundance than when they originate from more separated locations. Similarly, two water samples collected on consecutive dates frequently have similar water qualities. A key factor in this technique is time lag. Auto-correlation will calculate the correlation coefficient between a data series and itself, with time lag. When lag=0, the auto-correlation will be 1.0, i.e., an exact correlation between the data series and itself. If the auto-correlation at lag 1 is high, then each value is highly correlated with the value at the previous time point. If the auto-correlation at lag 12 is high for monthly data, then each month is highly correlated with the same month the year before, i.e., strong seasonality exists. The technique can, therefore, tell whether periodicity exists and what its cycle is (seasonal or yearly). For more details regarding this technique, see Systat. 8.0 Reference (SPSS 1998).

4.5 Cross-correlation

With many environmental processes, a change in one factor may influence other factors only after a certain time has elapsed. Cross-Correlation (SPSS 1998) was used in this study, in order to examine the interactions between two water quality variables. If the time lag = 0, that interaction is simply the Pearson Correlation which, when strongest, means the two variables correspond to each other without a time lag. When the lag is positive (negative), cross-correlation calculates the correlation coefficient between the values in the first series and the subsequent (previous) values in the second series. When a strong correlation occurs at lag = n, one variable corresponds to the other one, with this time lag.

4.6 Multivariate Analysis

Principal Component Analysis (PCA) was applied to the binary phytoplankton data in order to examine the temporal-spatial changes in the community structure of Upper and Lower Link Lakes. No attempt was made to relate changes in phytoplankton to water quality variation, as the results indicated that the common species composing the community did not change obviously in relation to the two major contaminants (U and ^{226}Ra), which decreased only to a limited extent. Some other, non-water quality factors, appear to contribute to the limited changes that do occur in community composition.

5.0 Results

5.1 Long-term Change

The temporal changes of ^{226}Ra-total and U-total are shown in Figures 1 and 2. There are a variety of methods to detect and quantify time-trend (Hirsch et al. 1991). The seasonal Kendall Test is a ranked correlation method and has been commonly used. However, the statistical package used in Boojum, Systat , lnly can report *Tau-b* coeffient, without significance level. As mentioned earlier, sampling was initiated at different times and was conducted at varying intervals, Time series was converted to the number of weeks from 18th April 1980 at all locations for comparison. Although samples were always not collected on the same day or week over the locations, this will not influence the potential long-term trends. As a result, another commonly used method, Pearson Correlation was used in this report, with seasonal pattern analyzed separately using auto-correlation as 4.4.

5.1.1 ^{226}Ra

The changes in ^{226}Ra over the sampling periods at the eight locations are shown in Figures 5.1a-h. W3 and W4, two ditches exiting the Rabbit Lake Waste Rock Pile and South Drainage, representing the major sources of ^{226}Ra and uranium. ^{226}Ra at W3 is typically higher than at any other location (0.2-3.3 Bq/l). The time- trend for U concentration over the period 1980 to 1998 is not significant (Pearson r = -0.134, P>0.05) - see Figure 5.1a, even though some high results were observed in the early 1980s. In the past five years (Sep. 1993-Sep. 1998), concentrations remained relatively stable (r=0.22, P>0.05).

The ^{226}Ra concentration at W4 (0.01-4.93 Bq/l) is generally lower than at W3, and data for the past five years show that this difference is significant (Wilcoxon Test, P<0.01). The relatively high concentration in the early 1980s rapidly decreased (Fig. 5.1b), and the overall trend shows a decrease (r=-0.408, P<0.001). However, the last five years of data do not show any significant trend (r=0.25, P>0.05), meaning the concentration has been lower and relatively stable since 1985.

The flows from W3 and W4 merge at W5 (Airport Road). Since ^{226}Ra concentration was higher than at W4 (0.01-1.6 Bq/l) than at W3, no significant time-trend was evident where they merged at W5, either for the entire sampling period (1985-1998) (r=0.091, P>0.1) or for the last five years (r=0.01, P>0.1) (Fig. 5.1c). Further downstream, at location W9, ^{226}Ra ranged more widely (0.06-1.3 Bq/l), and the concentration was typically lower than at W5, although the difference over the past five years was not significant (Wilcoxon Test P>0.05). Over the longer term (1988-1998), the concentration trend increased slowly, but significantly in statistical terms (r=0.416, P<0.05) (Fig. 5.1d).
At locations further downstream ^{226}Ra at W14 (0.12-1.1 Bq/l) was usually higher than at W9, and this difference was significant over the past five years (Wilcoxon Test, P<0.01). The higher levels can be attributed to the extra ^{226}Ra input from the delta area of Upper Link Lake, where sediment contains high levels of ^{226}Ra. Contaminated groundwater

discharge at the delta area also contributed to this increase (Boojum 1993). ^{226}Ra at this location did not show any significant trend either between 1986 and 1998), (r=0.170, P>0.05) (Fig. 5.1e), or during the past five years (r=0.06, P>0.1).

At the next location downstream, W15, where the concentration is even lower (0.14-0.8 Bq/l), there has been a significant decrease during the past five years (P<0.01), but no significant long-term trend (r=0.03, P>0.1), even though some variation was observed (Fig 5.1f). At W20, ^{226}Ra decreased further (0.07-0.90 Bq/l) (Fig. 5.1h), and for the last five years the concentration has been significantly lower than at W15 (Wilcoxon Test, P<0.01). No significant time-trend was observed over the longer sampling period (1988-98) at this location (r=0.09, P>0.1).

^{226}Ra concentrations at the outflow of Lower Link Lake, W25, were the lowest (0.01-0.60 Bq/l) of any recorded and, during the last five years, they were significantly lower than at location W20 (Wilcoxon Test, P<0.01). This location also exhibited a significant decreasing trend over 1980B1998 (r=-0.310, P<0.001), which continued over the last five years

(r= - 0.323, P<0.05). It should be noted that r of -0.310 is significant with the P value.

In summary, there is a well-defined ^{226}Ra gradient over the eight monitoring stations: the concentration decreased as one progresses downstream, except at W14 where extra sources enter. At W4 and W25, ^{226}Ra showed a trend to decrease slowly over the long term, but at W9, there was a slow increase. The time-trends at W9 and W25 were retained in the past five years.

5.1.2 Uranium

The long-term changes in uranium concentrations at all eight locations are shown in Figures 5.2a-h, in which extremely high records have been removed only for better illustrate the basic trends. Table 5.2 shows the basic statistics of the full data set.

Uranium was higher at location W3 (0.05-28 mg/l) than at any other. Over 1980-1998, the concentration increased slowly, but in a statistically significantly manner ($r=0.305$, $P<0.01$). In the past five years, however, the concentration has shown no significant trend ($r=0.119$, $P>0.05$). At the second source, W4, U concentrations were typically lower (<0.01-9.2 mg/l) and this difference was strongly significant during the last five years (Wilcoxon Test, $P<0.01$). Between 1980 and 1998, W4 showed a significant decrease W4 ($r=-0.494$, $P<0.001$), but the concentration has been stable in the past five years ($r=0.16$, $P>0.1$).

Further downstream at location W5, U concentration was lower than at W3 (0.01-27 mg/l) but higher than at W4. The differences were significant over the last five years (Wilcoxon Test, $P<0.01$). Over the longer term, concentrations showed slow but statistically detectable increases ($r=0.26$, $P< 0.01$), although they remained stable for the past five years ($r=0.156$, $P>0.05$). The concentration was even lower at W9 (0.2-18.4mg/l) and significant during the past five years (Wilcoxon Test, $P<0.01$). The concentrations showed slow but detectable declines ($r=-0.368$, $P<0.01$) over the past ten years (1987-98), but were fairly stable in the past five years ($r=-0.04$, $P>0.1$).

At the outflow of Upper Link Lake W14, U concentrations (0.34-4.4mg/l) were generally lower than at W9 and, for the last five years, the differences were significant ($P<0.01$). This is contrary to the changes that were observed for ^{226}Ra, which increased significantly at W14, suggesting that the sediment and contaminated groundwater in the Delta area affect ^{226}Ra rather than Uranium. Over the whole sampling period (1986-98), the concentration trend increased slowly, but statistically detectably ($r=0.328$, $P<0.01$). In the past five years, the trend became less significant ($r=0.271$, $P>0.05$).

At the outflow of Upper Link Lake, W15, U concentrations were even lower (0.28-3.7 mg/l) than at W14 and these differences were highly significant ($P<0.001$) during the last five

years. At W15 itself, the long-term trend (1987-98) showed slow, but significant increases ($r=0.333$, $P<0.05$) - a trend that persisted over the last five years ($r=0.442$, $P>0.05$).
At W20, U concentration was typically below 2.5 mg/l, despite a few high observations. Data from the past five years showed concentrations significantly lower than at W15 (Wilcoxon Test, $P<0.01$). Between 1988 and 1998, the concentrations at W15 varied and showed no significant trend ($r=0.101$, $P>0.1$), and this was also true for the past five years.
At the outflow of the system, W25, U concentrations decreased further (0.06-2.21 mg/l) (Fig. 5.2h). The Wilcoxon Test on the last five years of data indicated significantly lower U concentrations than at W20 ($P<0.01$), but no significant long-term trend, although some variation was observed. The past five years of data yielded a similar result.

In summary, a U concentration gradient can be clearly defined as generally decreasing from W3 to W25. The behavior of U is different from that of ^{226}Ra', however, in that it dose not increase at W14 (whereas ^{226}Ra dose), and at W15, it is not significantly lower than at W14. Compared with ^{226}Ra, U is also different in its long-term trends, in that its concentrations increase with time at a number of locations (W3, W5, W14, and W15) while ^{226}Ra increased only at W9.

5.2 Seasonal Trends

The concentrations of ^{226}Ra and Uranium at all eight locations were originally plotted against sampling date in relation to pH and temperature. It was found that, although there was always some variation among the different months, the variations appear to be particularly regular at W14 and W15, suggesting strong seasonal trends. Auto-correlation was used to detect and quantify this possible seasonality and the results are shown in Figures 5.3a-h for ^{226}Ra and Figures 5.4a-h for U.

In these figures, lag unit is a sampling event, although samples were collected typically at monthly intervals. The two lines indicate the 95% confidence bands, and the peak crossing above them demonstrates a significant correlation over time.

Auto-correlation is very weak and not periodical at W3, W5 and W9 (Figures 5.3a, c, d), meaning no seasonal trends existed. At W4, the auto-correlation does not show any periodicity, but it significantly decayed over time (Fig. 5.3b), implying ^{226} Ra concentrations did change seasonally, but with a long-term trend. The latter point agrees with the earlier description (see Figure 5.1b).

The ^{226}Ra auto-correlation is strong, however, at locations W14 and W15, with a periodicity of approximately 10-12 sampling events - a typical seasonal trend (Figures 5.3e-f). By examining the raw data, it is clear that ^{226} Ra concentrations reached their minimum in the summers of each year (June-Aug.) and peaked in winter/spring. It was also noted that periodicity slowly decayed as time lag increased. Possible reasons for this include: i) the difference from non-monthly intervals accumulated; ii) the periodicity is relatively weak at the early phase.
Two sub-series, containing only 1980-1989 and 1990-1998 samples, were drawn from the original data. The auto-correlation for 1980-1989 shows no periodicity, but the 1990-98 data show a periodicity similar to that in Figures 5.3e-f. This means that the seasonality developed only from 990, which coincides with the time when a macrophyte, *Nitella* sp., was transferred into Upper Link Lake in 1989 (Boojum 1993).

The interaction of ^{226} Ra with pH was examined using Cross-Correlation, the results of which are shown for locations W14 and W15 in Figures 5.3e-f. Clearly, ^{226} Ra and pH are strongly and negatively correlated, and both show strong seasonal trends. In other words, when pH was high in summer months, ^{226} Ra was low, and ^{226} Ra was high when pH was low in winter.

The auto-correlation plot of ^{226} Ra at W20and W25 shows no periodicity. The cross-correlation with pH yielded similarly negative results, meaning that the seasonal trends in both ^{226}Ra and pH had disappeared at these two locations. Auto-correlation at W20 was fairly high when the lag was small, but became very low as time lag increased. This suggests a weak or non-existent time trend. Auto-correlation at W25 rapidly decayed as time lag increased, implying a strong time-trend, as Figure 5.1h shows.

As with ^{226}Ra, uranium auto-correlation does not show any periodicity at W3, W4, W5, and W9. Since its cross-correlation with pH at these locations is also weak (Figures 5.6a-d), neither uranium nor pH were seasonal here. And, whereas the behavior of uranium at W14 and W15 was very similar to ^{226}Ra, in that the auto-correlation is strong and very periodic, there is a significant and negative cross-correlation between U and pH in a cyclical manner. These results show that uranium at these two locations was highly seasonal and strongly and negatively related to pH. Again, this seasonality was weak or non-existent before 1990, but it became strong in the past few years. Uranium concentrations were also seasonal at W20 (Fig. 5.4g), although less strong and consistent. Cross-correlation indicates a strong interaction between Uranium and pH, although this pattern disappears at W25, which is located in the channel to the Pow Bay.

5.3 ^{226}Ra, Uranium and TSS

As a water quality parameter, TSS is important in the way that it relates to the fate of contaminants and the functioning of biological polishing systems. TSS data are very scattered, with mostly very low records but a few that are very high. The high records are believed to be the result of rapid runoff after precipitation although, at this time, TSS data have not been related to rainfall data. How ^{226}Ra and U correlated with TSS was examined for all eight locations over the entire sampling period. The results are presented in Table 3.

^{226}Ra is significantly correlated with TSS at 5 locations, W4, W5, W9, W14 and W25, while U is closely correlated with TSS only at W20. It appears, therefore, that ^{226}Ra is more closely associated with TSS than U. It was also noted that at W15 and W20, where TSS was usually very low, ^{226}Ra and TSS were not significantly correlated.

An attempt was made to test the differences between TSS levels among the locations, even though TSS data depend strongly on the date and time the sample was taken - meaning data from the same month or week at different locations are not comparable. Removing all data that did not match in terms of the time recorded caused heavy data loss, however, so, as a result, no significance tests could be carried out. TSS levels at W14, W15, and W20 were, however, generally lower than at other locations.

5.4 Phytoplankton Community

Seventy-two genera, plus three unidentified taxa, were recorded in the samples. *Cryptomonas rostriformis* was differentiated from other species of the genus because it appeared to be different in its distribution and tolerance to contamination (see Section 2.2). The occurrences of the genera/taxa are shown in Table 5.4, where forty-two genera/taxa occur no more than three times in all 21 samples and a further twenty genera/taxa occur less than 10 times. The top ten genera/taxa were *Scenedesmus* (85.7%), *Cryptomonas* (81%), Unidentified Chlorophyte (76.2%), *Euglena* (71.4%), *Asterionella* (66.7%), *Planktospheria* (61.9%), *Tabellaria* (61.9%), Unidentified Chrysophyte, *Oscillatoria* (57.1%), *Cryptomonas rostriformis* (52.4%), *Staurastrum* (52.4%), *Dinobryon* (47.6%), *Mougeotia* (47.6%) and *Synedra* (47.6%).

The average number of genera/taxa recorded in a sample is 19.1, with a standard deviation of 8.62. The changes in the number of genera/taxa in the two lakes in three sampling years are given in Figure 5.5, which shows the richness did not change obviously over the period, although the highest was recorded in Lower Link Lake in 1991.

The PCA plot of the 21 samples on the first two dimensions is presented in Figure 5.6. The first two axes explain 30.6% of the total variance, with Axis 1 alone accounting for 18%. It is evident that the phytoplankton community compositions in Upper and Lower Link Lake were different in 1989, with Upper Link Lake samples on the left in the plot, and the Lower Link Lake samples on the right. In 1991 and 1995, however, this pattern disappears and the samples are heavily mixed. The 1989 samples are located lower down than the 1991 and 1995 samples, indicating their difference in genera/taxa composition.

Genera/taxa are plotted in Figure 5.7, in which it can be seen how they are associated with different locations and times the samples were collected. It was noted that *Scenedesmus*, *Cryptomonas*, *Euglena*, *Planktospheria*, *Oscillatoria, Navicula*, *Nitzschia* and an unidentified Chlorophyte were recorded in both lakes all the time. *Tabellaria*, *Cryptomonas rostriformis*, *Staurastrum*, *Dinobryon*, *Mougeotia*, *Synedra, Aphanizomenon*, *Asterionella* and an unidentified Chrysophyte were the second most common. Those genera/taxa that are strongly associated with particular samples are either rare or less abundant, implying that phytoplankton composition in the two lakes remained relatively stable over the sampling period.

No attempt was made to relate changes in phytoplankton community composition to water quality in this study. Firstly, temporal changes in phytoplankton community composition were relatively minor, particularly in Upper Link Lake, where the most common genera/taxa in 1989 remained dominant until 1995. Secondly, the changes in ^{226}Ra and U at W15 and W25 during the 1989-1995 period were quite limited and of little environmental significance. The compositional changes observed here, therefore, appear to be related to environmental factors other than water quality. The phytoplankton communities of the two Link Lakes are compared with those of the other lakes/pits in Chapter 10.

6.0 Discussion

Whereas most long-term monitoring programs focus on organic pollution/eutrophication, acidification and other metal contamination (Stow et al. 1998, Stoddard et al. 1998), this analysis documents long-term trends in two uncommon metals, ^{226}Ra and U, and relates these trends to biological systems.

As with other contaminants, ^{226}Ra and U decreased in a downstream direction, probably due to both natural purification and the biological polishing system in the lakes. Over the long term, ^{226}Ra trended to slowly decrease at its major source (W3) while U trended to increase. In the past five years, the input of both metals was relatively constant, however, which suggests that the biogeochemical processes in the waste rock piles have stabilized. It was also noted that ^{226}Ra concentrations decreased gradually, but continuously at the output (W25) and, during the last five years, it decreased significantly between W3 and W9 and from W14 to W25. These results indicate that ^{226}Ra was being removed from the water as it flowed through the system, and that its removal was improved over time. A more quantitative assessment of this process will be made elsewhere. Uranium is somewhat different in that, while the concentrations at each location tended to be relatively stable over the past five years, those concentrations decreased as one progressed downstream. This suggests that the removal of U in the system was fairly stable.

Auto- and cross-correlation shows that ^{226}Ra and U changed seasonally in both lakes (W14, W15), but the seasonality disappeared at all non-lake locations. Levels of both metals were lower in summer and higher in winter, while pH was higher in summer and lower in winter. This pattern appears to correspond to the growth of macrophyte and phytoplankton very well. The higher pH in summer appears to be the result of photosynthesis. It is known that *Nitella* sp. established a healthy population in Upper Link Lake around 1990, reaching a biomass as high as 250 g dry /m^2 (Boojum 1993). Boojum also observed that *Nitella* could absorb ^{226}Ra from the water column and that phytoplankton also contributed to the removal (Boojum 1993).

Accordingly, the seasonal patterns observed in both ^{226}Ra and U can be explained as follows. In summer, *Nitella* sp. and phytoplankton remove ^{226}Ra and U from the water column, probably by various mechanisms that significantly reduce the concentrations. In winter, when the plants stop growing, ^{226}Ra and U levels increase. The initial occurrence of this seasonality, in approximately 1990, matches the time when Nitella was transferred to Upper Link Lake, seemingly providing field evidence for the functioning of ecological engineering.

Since *Nitella sp*. also grows in Lower Link Lake, a similar seasonal pattern should be seen but, unfortunately, the sampling location best representative of this lake (W23) was not visited regularly and few data are available. At the outflow channel of Lower Link Lake, W25, neither ^{226}Ra nor U showed any seasonality, suggesting that the effects of *Nitella* were restricted to the lake where the biomass was adequate to influence water quality.

Phytoplankton communities in ^{226}Ra- and U-contaminated waters are poorly, if at all, reported in the literature. This study documents the genera/taxa composition in two uranium-mining impacted lakes. In 1998, St-Cyr et al. published a summary of the literature on the general tolerance of phytoplankton species to metals, in which three that are listed as resistant" (*Scenedesmus*, *Euglena*, and *Synedra*) occur in the top 14 common genera in the Link Lakes. However, four other common genera found in the lakes *(Asterionella*, *Cryptomonas*, *Staurastrum*, and *Tabellaria)* are listed as "sensitive" in the review article. *Dinobryon* has been reported as both sensitive and resistant, depending on the species and researchers, and the other genera common in the lakes, including *Planktospheria*, *Mougeotia* and *Oscillatoria,* do not appear to be cited in the literature regarding their responses to metal contamination. It is perfectly possible that the tolerance of a genus varies from one metal to another, and that it also sometimes depends on the species of the genus. For example, the most common genus in the Link Lakes, *Scenedesmus*, was reported to be very sensitive to arsenic (Voke et al. 1980), but it is clearly extremely tolerant of ^{226}Ra and U. How applicable the results from laboratory toxicity tests to the real world are, is another question that needs to be addressed.

Table 2: Descriptive Statistics of four major water quality parameters at eight locations

Parameter	N	Data Missing %	Max	Min	Average (A)	StDev (S)	S/A	Medians
W3								
^{226}Ra-total	194	2.5	3.3	0.2	0.62	0.36	43.50	0.54
U-total	195	2.0	28.0	0.05	7.42	4.10	7.41	6.85
pH	190	4.5	8.7	6.1	7.04	0.36	0.05	7.10
TSS	193	3.0	74.0	0.2	2.62	6.31	0.08	1.00
W4								
^{226}Ra-total	185	2.6	4.9	0.01	0.16	0.45	2.78	0.04
U-total	185	2.6	9.2	0.003	0.16	0.80	5.08	0.03
pH	179	5.8	10.5	6.1	6.95	0.53	0.08	7.20
TSS	181	4.7	389.0	0.4	11.42	42.44	3.72	2.00
Temp(C)	159	16.3	24.0	-0.5	7.89	6.28	0.80	6.00
W5								
^{226}Ra-total	186	2.1	1.6	0.01	0.30	0.23	0.77	0.25
U-total	186	2.1	27.0	0.01	3.71	3.19	0.86	3.36
pH	167	12.1	8.4	6.0	7.05	0.36	0.05	7.20
TSS	183	3.7	210.8	0.6	7.44	23.67	3.18	2.00
W9								
^{226}Ra-total	81	2.4	1.3	0.06	0.24	0.20	0.83	0.18
U-total	80	3.6	18.4	0.2	2.55	2.56	1.00	1.64
pH	55	33.7	7.9	6.2	6.73	0.31	0.05	6.80
TSS	76	8.4	2030.0	1.0	31.84	232.52	7.30	2.00
W14								
^{226}Ra-total	123	2.4	1.1	0.12	0.41	0.22	0.52	0.35
U-total	123	2.4	4.4	0.34	1.12	0.77	0.69	0.86
pH	109	13.5	9.3	5.9	6.75	0.76	0.11	7.00
TSS	122	3.2	7.0	0.6	2.44	1.29	0.53	2.00
W15								
^{226}Ra-total	139	2.8	0.8	0.13	0.36	0.14	0.40	0.30
U-total	139	2.8	3.3	0.28	1.00	0.62	0.62	0.75
pH	128	10.5	9.6	5.8	6.71	0.66	0.10	7.00
TSS	135	5.6	28.0	0.4	3.11	3.39	1.09	2.00
W20								
^{226}Ra-total	107	2.7	0.9	0.06	0.20	0.12	0.63	0.17
U-total	107	2.7	22.1	0.1	1.16	3.16	2.71	0.42
pH	80	27.3	9.2	5.9	6.72	0.48	0.07	6.85
TSS	99	10.0	1110.0	1.0	15.27	112.41	7.36	1.50
W25								
^{226}Ra-total	139	1.4	0.6	0.01	0.11	0.10	0.87	0.08
U-total	137	2.8	2.2	0.06	0.30	0.32	1.08	0.17
pH	122	13.5	8.7	5.9	6.67	0.55	0.08	6.90
TSS	132	6.4	18.0	0.2	3.30	3.39	1.03	2.00

unit: ^{226}Ra-total Bq/L, U-total: mg/L TSS: mg/L

Table 3: Pearson Correlation Between TSS and Ra226/U at All Eight Locations

Locations	N	Ra-TSS		U-TSS	
		r	*P*	*r*	*P*
W3	192	0.115	>0.05	-0.035	>0.05
W4	181	0.65	<0.001	0.017	>0.05
W5	183	0.41	<0.001	-0.096	>0.05
W9	74	0.812	<0.001	0.104	>0.05
W14	122	0.188	<0.05	0.071	>0.05
W15	119	0.02	>0.05	0.032	>0.05
W20	115	-0.046	>0.05	0.835	<0.001
W25	100	0.331	<0.001	0.074	>0.05

Table 4: Raw Data for Figure 1

W3			W4			W5		
Date_w3	weeks	Ra226-Tot	Date_W4	weeks	Ra226-Tot	Date_W5	weeks	Ra226-Tot
18-Apr-80	0.00		18-Apr-80	0.00	4.926	21-Jan-85	248.43	0.196
19-Jul-80	13.14	1.96	19-Jul-80	13.14		21-Jan-85	248.43	0.15
5-Oct-80	24.29	0.519	5-Oct-80	24.29	0.481	1-Feb-85	250.00	
10-Jan-81	38.14	0.4	31-Jan-81	41.14	1.8	21-Feb-85	252.86	0.14
18-Apr-81	52.14	0.323	4-May-81	54.43	2.43	27-Mar-85	257.71	
9-Jul-81	63.86	0.2	10-Jul-81	64.00	1.5	30-Mar-85	258.14	0.136
26-Oct-81	79.43	0.3	26-Oct-81	79.43	0.5	11-Apr-85	259.86	0.076
23-Jan-82	92.14	0.33	29-Apr-82	105.86	0.93	16-Apr-85	260.57	0.16
3-Apr-82	102.14	0.28	13-Oct-82	129.71	0.35	9-May-85	263.86	0.429
13-Oct-82	129.71	3.3	28-Feb-83	149.43	0.28	9-May-85	263.86	0.5
24-Jan-83	144.43	0.59	10-Apr-83	155.29	0.76	20-Jun-85	269.86	0.204
10-Apr-83	155.29	0.46	14-Jul-83	168.86	0.52	20-Jun-85	269.86	0.25
14-Jul-83	168.86	0.389	14-Oct-83	182.00	0.24	8-Jul-85	272.43	0.17
14-Oct-83	182.00	0.61	21-Jan-84	196.14	0.24	9-Jul-85	272.57	0.25
19-Jan-84	195.86	0.35	18-Feb-84	200.14	0.46	30-Jul-85	275.57	0.35
18-Feb-84	200.14	0.42	20-Mar-84	204.57	0.81	5-Aug-85	276.43	0.698
20-Mar-84	204.57		9-May-84	211.71	0.298	15-Aug-85	277.86	0.35
11-May-84	212.00	0.357	9-Jun-84	216.14	0.092	14-Sep-85	282.14	0.768
9-Jun-84	216.14	0.476	9-Aug-84	224.86	0.128	19-Sep-85	282.86	0.35
9-Aug-84	224.86	0.613	14-Sep-84	230.00	0.274	21-Oct-85	287.43	0.465
14-Sep-84	230.00	0.821	11-Oct-84	233.86	0.251	10-Nov-85	290.29	0.343
11-Oct-84	233.86	0.451	9-Nov-84	238.00	0.37	16-Dec-85	295.43	0.443
9-Nov-84	238.00	0.42	7-Dec-84	242.00	0.143	16-Jan-86	299.86	0.538
7-Dec-84	242.00	0.548	21-Jan-85	248.43	0.121	17-Jan-86	300.00	0.65
21-Jan-85	248.43	0.612	30-Mar-85	258.14	0.054	13-Feb-86	303.86	0.35
30-Mar-85	258.14	0.297	11-Apr-85	259.86	0.117	26-Feb-86	305.71	0.132
11-Apr-85	259.86	0.204	9-May-85	263.86	0.135	16-Mar-86	308.29	0.081
9-May-85	263.86	2.17	8-Jun-85	268.14	0.06	17-Mar-86	308.43	0.08
8-Jun-85	268.14	0.347	8-Jul-85	272.43	0.16	7-Apr-86	311.43	0.372
8-Jul-85	272.43	0.73	5-Aug-85	276.43	0.387	17-Apr-86	312.86	0.15
5-Aug-85	276.43	0.816	5-Sep-85	280.86	0.196	20-May-86	317.57	0.576
5-Sep-85	280.86	1.25	10-Oct-85	285.86	0.138	20-May-86	317.57	0.3
10-Oct-85	285.86	0.82	10-Nov-85	290.29	0.182	10-Jun-86	320.57	0.005
10-Nov-85	290.29	0.563	5-Dec-85	293.86	0.072	13-Jun-86	321.00	0.307
5-Dec-85	293.86	0.577	30-Jan-86	301.86	0.093	15-Jul-86	325.57	0.312
11-Jun-86	320.71	0.584	25-Feb-86	305.57	0.127	15-Jul-86	325.57	0.6
11-Jul-86	325.00	1.47	16-Mar-86	308.29	0.179	4-Aug-86	328.43	0.274
4-Aug-86	328.43	0.691	4-Apr-86	311.00	1.009	14-Sep-86	334.29	0.328
14-Sep-86	334.29	0.937	11-Jun-86	320.71	0.117	25-Sep-86	335.86	0.45
20-Oct-86	339.43	0.561	11-Jul-86	325.00	0.072	20-Oct-86	339.43	0.301
8-Nov-86	342.14	0.558	4-Aug-86	328.43	0.151	8-Nov-86	342.14	0.444
4-Dec-86	345.86	0.576	14-Sep-86	334.29	0.021	19-Nov-86	343.71	0.6

Table 4: Raw Data for Figure 1 (continuation)

W3			W4			W5		
Date_w3	weeks	Ra226-Tot	Date_W4	weeks	Ra226-Tot	Date_W5	weeks	Ra226-Tot
9-Jan-87	351.00	0.394	20-Oct-86	339.43	0.045	4-Dec-86	345.86	0.509
19-Feb-87	356.86	0.483	8-Nov-86	342.14	0.056	9-Jan-87	351.00	0.158
4-Mar-87	358.71	0.334	4-Dec-86	345.86	0.071	19-Feb-87	356.86	0.2
8-Apr-87	363.71	0.288	9-Jan-87	351.00	0.023	4-Mar-87	358.71	0.15
6-May-87	367.71	0.638	19-Feb-87	356.86	0.024	8-Apr-87	363.71	0.138
13-Jun-87	373.14	0.596	4-Mar-87	358.71	0.023	7-May-87	367.86	0.155
18-Jul-87	378.14	0.523	8-Apr-87	363.71	0.043	13-Jun-87	373.14	0.131
9-Aug-87	381.29	0.424	6-May-87	367.71	0.038	18-Jul-87	378.14	0.187
11-Sep-87	386.00	0.36	13-Jun-87	373.14	0.033	9-Aug-87	381.29	0.154
11-Oct-87	390.29	0.41	18-Jul-87	378.14	0.027	11-Sep-87	386.00	0.085
20-Nov-87	396.00	0.48	9-Aug-87	381.29	0.021	11-Oct-87	390.29	0.067
5-Dec-87	398.14	0.46	11-Sep-87	386.00	0.027	20-Nov-87	396.00	0.15
7-Jan-88	402.86	0.25	11-Oct-87	390.29	0.052	5-Dec-87	398.14	0.095
11-Feb-88	407.86	0.4	20-Nov-87	396.00	0.039	7-Jan-88	402.86	0.067
13-Mar-88	412.29	0.3	5-Dec-87	398.14	0.021	11-Feb-88	407.86	0.17
9-Apr-88	416.14	0.35	7-Jan-88	402.86	0.015	13-Mar-88	412.29	0.07
7-May-88	420.14	2	11-Feb-88	407.86	0.03	9-Apr-88	416.14	0.09
18-Jun-88	426.14	0.6	13-Mar-88	412.29	0.03	7-May-88	420.14	1.2
2-Jul-88	428.14	2	9-Apr-88	416.14	0.02	18-Jun-88	426.14	0.3
13-Aug-88	434.14	0.65	7-May-88	420.14	0.65	3-Jul-88	428.29	0.3
7-Sep-88	437.71	0.7	18-Jun-88	426.14	0.13	13-Aug-88	434.14	0.35
20-Oct-88	443.86	0.55	2-Jul-88	428.14	0.06	7-Sep-88	437.71	0.25
19-Nov-88	448.14	0.6	13-Aug-88	434.14	0.06	20-Oct-88	443.86	0.12
3-Dec-88	450.14	0.5	7-Sep-88	437.71	0.05	19-Nov-88	448.14	0.14
14-Jan-89	456.14	0.55	20-Oct-88	443.86	0.03	3-Dec-88	450.14	0.08
9-Feb-89	459.86	0.5	19-Nov-88	448.14	0.02	14-Jan-89	456.14	0.1
1-Mar-89	462.71	0.3	3-Dec-88	450.14	0.02	9-Feb-89	459.86	0.11
6-Apr-89	467.86	0.4	14-Jan-89	456.14	0.04	1-Mar-89	462.71	0.08
30-May-89	475.57	0.95	9-Feb-89	459.86	0.02	6-Apr-89	467.86	0.1
4-Jun-89	476.29	0.9	1-Mar-89	462.71	0.02	30-May-89	475.57	0.25
5-Jun-89	476.43	1.1	6-Apr-89	467.86	0.03	4-Jun-89	476.29	0.3
13-Jul-89	481.86	1.2	30-May-89	475.57	0.05	13-Jul-89	481.86	0.65
12-Aug-89	486.14	0.95	4-Jun-89	476.29	0.07	12-Aug-89	486.14	0.55
11-Sep-89	490.43	1.3	13-Jul-89	481.86	0.1	11-Sep-89	490.43	0.55
7-Oct-89	494.14	0.65	12-Aug-89	486.14	0.1	7-Oct-89	494.14	0.5
2-Nov-89	497.86	0.8	11-Sep-89	490.43	0.19	2-Nov-89	497.86	0.5
17-Dec-89	504.29	0.8	7-Oct-89	494.14	0.12	17-Dec-89	504.29	0.6
11-Jan-90	507.86	0.55	2-Nov-89	497.86	0.12	11-Jan-90	507.86	0.55
25-Feb-90	514.29	0.5	17-Dec-89	504.29	0.09	25-Feb-90	514.29	0.5
11-Mar-90	516.29	0.4	11-Jan-90	507.86	0.06	11-Mar-90	516.29	0.45
7-Apr-90	521.57	0.45	17-Apr-90	521.57	0.45	17-Apr-90	521.57	0.25
6-May-90	524.29	0.7	6-May-90	524.29	0.1	6-May-90	524.29	0.55

Table 4: Raw Data for Figure 1 (continuation)

W3			W4			W5		
Date_w3	weeks	Ra226-Tot	Date_W4	weeks	Ra226-Tot	Date_W5	weeks	Ra226-Tot
3-Jun-90	528.29	0.5	3-Jun-90	528.29	0.06	3-Jun-90	528.29	0.25
14-Jul-90	534.14	0.65	14-Jul-90	534.14	0.06	14-Jul-90	534.14	0.4
25-Aug-90	540.14	0.75	25-Aug-90	540.14	0.03	25-Aug-90	540.14	0.35
9-Sep-90	542.29	0.55	9-Sep-90	542.29	0.04	9-Sep-90	542.29	0.25
20-Oct-90	548.14	0.65	20-Oct-90	548.14	0.03	20-Oct-90	548.14	0.2
19-Nov-90	552.43	0.55	19-Nov-90	552.43	0.03	19-Nov-90	552.43	0.25
8-Dec-90	555.14	0.5	8-Dec-90	555.14	0.03	8-Dec-90	555.14	0.3
10-Jan-91	559.86	0.5	10-Jan-91	559.86	0.02	10-Jan-91	559.86	0.2
5-Feb-91	563.57	0.5	5-Feb-91	563.57	0.02	5-Feb-91	563.57	0.19
10-Mar-91	568.29	0.4	10-Mar-91	568.29	0.02	10-Mar-91	568.29	0.07
16-Apr-91	573.57	0.85	16-Apr-91	573.57	0.08	16-Apr-91	573.57	0.4
18-May-91	578.14	0.9	18-May-91	578.14	0.04	18-May-91	578.14	0.4
22-Jun-91	583.14	0.8	10-Jun-91	581.43	0.03	22-Jun-91	583.14	0.3
19-Jul-91	587.00	0.45	22-Jun-91	583.14	0.03	19-Jul-91	587.00	0.25
3-Aug-91	589.14	0.7	19-Jul-91	587.00	0.04	3-Aug-91	589.14	0.5
10-Sep-91	594.57	1.2	2-Aug-91	589.00	0.03	16-Aug-91	591.00	0.25
27-Oct-91	601.29	0.8	3-Aug-91	589.14	0.03	10-Sep-91	594.57	0.18
9-Nov-91	603.14	0.8	10-Sep-91	594.57	0.03	27-Oct-91	601.29	0.4
15-Dec-91	608.29	0.65	27-Oct-91	601.29	0.05	9-Nov-91	603.14	0.45
4-Jan-92	611.14	0.6	9-Nov-91	603.14	0.05	15-Dec-91	608.29	0.12
18-Feb-92	617.57	0.5	15-Dec-91	608.29	0.02	5-Jan-92	611.29	0.35
6-Mar-92	620.00	0.5	4-Jan-92	611.14	0.03	18-Feb-92	617.57	0.35
20-Apr-92	626.43	0.45	22-Feb-92	618.14	0.03	6-Mar-92	620.00	0.09
17-May-92	630.29	0.55	6-Mar-92	620.00	0.02	20-Apr-92	626.43	0.2
6-Jun-92	633.14	0.6	20-Apr-92	626.43	0.02	17-May-92	630.29	0.14
14-Jul-92	638.57	0.8	17-May-92	630.29	0.11	6-Jun-92	633.14	0.35
15-Aug-92	643.14	0.8	6-Jun-92	633.14	0.03	14-Jul-92	638.57	0.2
18-Sep-92	648.00		14-Jul-92	638.57	0.02	15-Aug-92	643.14	0.35
13-Oct-92	651.57		15-Aug-92	643.14	0.03	18-Sep-92	648.00	0.4
12-Nov-92	655.86	0.75	18-Sep-92	648.00		13-Oct-92	651.57	0.5
5-Dec-92	659.14	0.65	13-Oct-92	651.57		12-Nov-92	655.86	0.35
3-Jan-93	663.29	0.65	12-Nov-92	655.86	0.04	5-Dec-92	659.14	0.35
3-Feb-93	667.71	0.55	29-Nov-92	658.29	0.05	3-Jan-93	663.29	0.35
18-Mar-93	673.86	0.5	5-Dec-92	659.14	0.06	3-Feb-93	667.71	0.35
19-Apr-93	678.43	0.4	3-Jan-93	663.29	0.1	18-Mar-93	673.86	0.35
8-May-93	681.14	0.55	3-Feb-93	667.71	0.06	19-Apr-93	678.43	0.11
6-Jun-93	685.29	0.5	18-Mar-93	673.86	0.06	8-May-93	681.14	0.35
18-Jul-93	691.29	0.6	19-Apr-93	678.43	0.04	6-Jun-93	685.29	0.14
10-Aug-93	694.57	0.95	8-May-93	681.14	0.04	18-Jul-93	691.29	0.25
25-Sep-93	701.14	0.5	6-Jun-93	685.29	0.03	10-Aug-93	694.57	0.45
13-Oct-93	703.71	0.55	18-Jul-93	691.29	0.02	25-Sep-93	701.14	0.3
14-Nov-93	708.29	0.5	10-Aug-93	694.57	0.04	13-Oct-93	703.71	0.2

Table 4: Raw Data for Figure 1 (continuation)

W3			W4			W5		
Date_w3	weeks	Ra226-Tot	Date_W4	weeks	Ra226-Tot	Date_W5	weeks	Ra226-Tot
5-Dec-93	711.29	0.5	25-Sep-93	701.14	0.02	14-Nov-93	708.29	0.16
3-Jan-94	715.43	0.5	13-Oct-93	703.71	0.04	5-Dec-93	711.29	0.35
27-Feb-94	723.29	0.4	14-Nov-93	708.29	0.03	3-Jan-94	715.43	0.4
9-Mar-94	724.71	0.5	5-Dec-93	711.29	0.05	27-Feb-94	723.29	0.2
8-Apr-94	729.00	0.4	3-Jan-94	715.43	0.08	9-Mar-94	724.71	0.12
24-May-94	735.57	0.65	27-Feb-94	723.29	0.04	8-Apr-94	729.00	0.35
6-Jun-94	737.43	0.65	9-Mar-94	724.71	0.03	24-May-94	735.57	0.25
3-Jul-94	741.29	0.6	8-Apr-94	729.00	0.04	6-Jun-94	737.43	0.25
2-Aug-94	745.57	0.5	24-May-94	735.57	0.04	3-Jul-94	741.29	0.12
24-Sep-94	753.14	0.5	6-Jun-94	737.43	0.02	2-Aug-94	745.57	0.2
20-Oct-94	756.86	0.45	3-Jul-94	741.29	0.03	24-Sep-94	753.14	0.4
4-Nov-94	759.00	0.4	2-Aug-94	745.57	0.05	20-Oct-94	756.86	0.25
7-Dec-94	763.71	0.45	24-Sep-94	753.14	0.02	4-Nov-94	759.00	
3-Jan-95	767.57	0.5	20-Oct-94	756.86	0.03	3-Jan-95	767.57	0.3
23-Feb-95	774.86	0.35	4-Nov-94	759.00	0.02	23-Feb-95	774.86	0.25
4-Mar-95	776.14	0.4	7-Dec-94	763.71	0.04	4-Mar-95	776.14	0.17
7-Apr-95	781.00	0.35	3-Jan-95	767.57	0.04	7-Apr-95	781.00	0.25
21-May-95	787.29	0.45	23-Feb-95	774.86	0.03	21-May-95	787.29	0.18
17-Jun-95	791.14	0.35	4-Mar-95	776.14	0.02	17-Jun-95	791.14	0.12
2-Jul-95	793.29	0.35	7-Apr-95	781.00	0.03	1-Jul-95	793.14	0.12
9-Aug-95	798.71	1.1	21-May-95	787.29	0.03	9-Aug-95	798.71	0.3
14-Aug-95	799.43	0.6	17-Jun-95	791.14	0.03	14-Aug-95	799.43	0.2
1-Sep-95	802.00	0.95	2-Jul-95	793.29	0.03	1-Sep-95	802.00	0.25
8-Sep-95	803.00	0.75	9-Aug-95	798.71	0.35	8-Sep-95	803.00	0.35
7-Oct-95	807.14	0.8	14-Aug-95	799.43	0.02	7-Oct-95	807.14	0.5
4-Nov-95	811.14	0.65	1-Sep-95	802.00	0.04	4-Nov-95	811.14	0.3
4-Dec-95	815.43	0.5	8-Sep-95	803.00	0.02	4-Dec-95	815.43	0.3
19-Jan-96	822.00	0.5	7-Oct-95	807.14	0.03	19-Jan-96	822.00	0.5
17-Feb-96	826.14	0.35	4-Nov-95	811.14	0.03	17-Feb-96	826.14	0.45
10-Mar-96	829.29	0.6	4-Dec-95	815.43	0.09	10-Mar-96	829.29	0.45
29-Apr-96	836.43		19-Jan-96	822.00	0.04	29-Apr-96	836.43	
19-May-96	839.29	0.6	17-Feb-96	826.14	0.04	19-May-96	839.29	0.35
23-Jun-96	844.29	0.5	10-Mar-96	829.29	0.07	23-Jun-96	844.29	0.14
19-Jul-96	848.00	0.6	29-Apr-96	836.43		19-Jul-96	848.00	0.13
8-Aug-96	850.86	0.4	19-May-96	839.29	0.06	8-Aug-96	850.86	0.15
5-Sep-96	854.86	0.6	23-Jun-96	844.29	0.05	5-Sep-96	854.86	0.25
20-Oct-96	861.29	0.7	19-Jul-96	848.00	0.5	20-Oct-96	861.29	0.4
7-Nov-96	863.86	0.65	8-Aug-96	850.86	0.02	6-Nov-96	863.71	0.45
10-Nov-96	864.29	0.65	5-Sep-96	854.86	0.03	7-Nov-96	863.86	0.11
1-Jan-97	871.71	0.5	20-Oct-96	861.29	0.04	10-Nov-96	864.29	0.2
30-Jan-97	875.86	0.55	7-Nov-96	863.86	0.02	1-Jan-97	871.71	0.25
23-Feb-97	879.29	0.5	10-Nov-96	864.29	0.03	30-Jan-97	875.86	0.45

Table 4: Raw Data for Figure 1 (continuation)

W3			W4			W5		
Date_w3	weeks	Ra226-Tot	Date_W4	weeks	Ra226-Tot	Date_W5	weeks	Ra226-Tot
9-Mar-97	881.29	0.48	1-Jan-97	871.71	0.01	23-Feb-97	879.29	0.45
31-Mar-97	884.43	0.41	30-Jan-97	875.86	0.13	9-Mar-97	881.29	0.28
1-Apr-97	884.57	0.55	23-Feb-97	879.29	0.04	1-Apr-97	884.57	0.14
6-Apr-97	885.29	0.48	9-Mar-97	881.29	0.01	19-Apr-97	887.14	1.6
12-Apr-97	886.14	0.38	1-Apr-97	884.57	0.03	9-May-97	890.00	0.24
27-Apr-97	888.29	0.61	8-May-97	889.86	0.07	8-Jun-97	894.29	0.22
8-May-97	889.86	0.51	9-May-97	890.00	0.07	7-Jul-97	898.43	0.1
9-May-97	890.00	0.37	8-Jun-97	894.29	0.03	9-Aug-97	903.14	0.13
11-May-97	890.29	0.42	6-Jul-97	898.29	0.07	5-Sep-97	907.00	0.07
18-May-97	891.29	0.42	8-Aug-97	903.00	0.05	16-Sep-97	908.57	1.5
25-May-97	892.29	0.51	5-Sep-97	907.00	0.04	24-Sep-97	909.71	1.1
1-Jun-97	893.29	0.48	16-Sep-97	908.57	0.55	4-Oct-97	911.14	1.2
8-Jun-97	894.29	0.62	1-Oct-97	910.71	0.07	14-Nov-97	917.00	0.65
15-Jun-97	895.29	0.43	14-Nov-97	917.00	0.09	13-Dec-97	921.14	0.08
30-Jun-97	897.43	0.54	26-Jan-98	927.43	0.26	26-Jan-98	927.43	0.03
6-Jul-97	898.29	0.5	21-Apr-98	939.57	0.19	17-Feb-98	930.57	0.03
13-Jul-97	899.29	0.61	12-May-98	942.57	0.03	21-Apr-98	939.57	0.17
8-Aug-97	903.00	0.47	4-Jun-98	945.86	0.04	12-May-98	942.57	0.06
9-May-97	890.00	0.51	9-Jul-98	950.86	0.03	4-Jun-98	945.86	0.06
16-Sep-97	908.57	0.75	1-Aug-98	954.14	0.03	9-Jul-98	950.86	0.05
1-Oct-97	910.71	1.6	4-Sep-98	959.00	0.03	2-Aug-98	954.29	0.03
14-Nov-97	917.00	0.9				5-Sep-98	959.14	0.04
12-Jan-98	925.43	0.66						
17-Feb-98	930.57	0.56						
7-Mar-98	933.14	0.49						
4-Apr-98	937.14	0.44						
12-May-98	942.57	0.56						
4-Jun-98	945.86	0.45						
10-Jul-98	951.00	0.55						
1-Aug-98	954.14	0.51						
4-Sep-98	959.00	0.52						

Table 4: Raw Data for Figure 1 (continuation)

W9			W14			W15		
Date_W9	weeks	Ra226-Tot	Date_W14	weeks	Ra226-Tot	Date_w15	weeks	Ra226-Tot
30-Jul-88	432.14286	0.09	17-Nov-86	343.43	0.465	18-Jan-87	352.29	0.424
30-Aug-88	436.57143	0.13	13-Dec-86	347.14	0.618	19-Feb-87	356.86	0.678
1-Sep-88	436.85714	0.11	18-Jan-87	352.29	0.474	4-Mar-87	358.71	0.497
22-Sep-88	439.85714	0.08	19-Feb-87	356.86	0.311	19-Apr-87	365.29	0.215
6-Jun-89	476.57143	0.17	4-Mar-87	358.71	0.246	7-May-87	367.86	0.177
5-Jul-89	480.71429	0.4	19-Apr-87	365.29	0.333	19-Jun-87	374.00	0.217
19-Jul-89	482.71429	0.45	7-May-87	367.86	0.245	25-Jun-87	374.86	0.221
1-Aug-89	484.57143	0.25	19-Jun-87	374.00	0.277	18-Jul-87	378.14	0.318
28-Aug-89	488.42857	0.17	18-Jul-87	378.14	0.413	10-Aug-87	381.43	0.349
20-Sep-89	491.71429	0.2	10-Aug-87	381.43	0.346	12-Sep-87	386.14	0.338
23-Dec-89	505.14286	0.25	12-Sep-87	386.14	0.415	11-Oct-87	390.29	0.2
15-Jan-90	508.42857		20-Nov-87	396.00	0.220	20-Nov-87	396.00	0.25
10-Feb-90	512.14286		5-Dec-87	398.14	0.210	5-Dec-87	398.14	0.27
9-Apr-90	520.42857		7-Jan-88	402.86	0.130	1-Feb-88	406.43	0.29
12-Jun-90	529.57143	0.16	11-Feb-88	407.86	0.290	16-Jun-88	425.86	0.25
10-Jun-91	581.42857	0.13	14-Mar-88	412.43	0.35	13-Aug-88	434.14	0.4
2-Aug-91	589	0.19	16-Jun-88	425.86	0.3	30-Aug-88	436.57	0.3
25-Sep-91	596.71429	0.13	2-Jul-88	428.14	0.25	7-Sep-88	437.71	0.3
5-Jan-92	611.28571	0.18	13-Aug-88	434.14	0.4	8-Oct-88	442.14	0.3
18-Feb-92	617.57143	0.11	13-Sep-88	438.57	0.3	20-Nov-88	448.29	0.25
28-May-92	631.85714	0.08	8-Oct-88	442.14	0.45	28-Dec-88	453.71	0.2
18-Jun-92	634.85714	0.13	28-Dec-88	453.71	0.14	25-Jan-89	457.71	0.25
18-Jul-92	639.14286	0.1	25-Jan-89	457.71	0.16	9-Feb-89	459.86	0.3
4-Aug-92	641.57143	0.1	9-Feb-89	459.86	0.19	1-Mar-89	462.71	0.2
20-Sep-92	648.28571	0.15	1-Mar-89	462.71	0.3	8-Apr-89	468.14	0.3
8-Dec-92	659.57143	0.16	8-Apr-89	468.14	0.25	9-May-89	472.57	0.3
2-Jan-93	663.14286	0.25	4-Jun-89	476.29	0.45	4-Jun-89	476.29	0.35
1-Feb-93	667.42857	0.15	12-Jul-89	481.71		12-Jul-89	481.71	
20-Mar-93	674.14286	0.09	19-Jul-89	482.71	0.4	19-Jul-89	482.71	0.3
9-Apr-93	677	0.13	12-Aug-89	486.14	0.35	12-Aug-89	486.14	0.35
30-May-93	684.28571	0.06	24-Sep-89	492.29	0.45	24-Sep-89	492.29	0.4
5-Jun-93	685.14286	0.11	13-Oct-89	495.00	0.5	7-Oct-89	494.14	0.45
27-Jul-93	692.57143	0.12	23-Dec-89	505.14	0.55	4-Nov-89	498.14	
19-Aug-93	695.85714	0.18	15-Jan-90	508.43	0.85	23-Dec-89	505.14	0.45
25-Sep-93	701.14286	0.2	10-Feb-90	512.14	0.7	15-Jan-90	508.43	0.6
18-Nov-93	708.85714	0.09	3-Mar-90	515.14	0.7	10-Feb-90	512.14	0.7
7-Dec-93	711.57143	0.16	9-Apr-90	520.43	0.85	3-Mar-90	515.14	0.35
22-Jan-94	718.14286	0.06	26-May-90	527.14	0.35	9-Apr-90	520.43	0.75
13-Feb-94	721.28571	0.19	5-Jun-90	528.57	0.3	6-May-90	524.29	0.3
13-Mar-94	725.28571	0.15	14-Jul-90	534.14	0.45	5-Jun-90	528.57	0.3
7-Apr-94	728.85714	0.1	25-Aug-90	540.14	0.55	14-Jul-90	534.14	0.35
28-Jun-94	740.57143	0.13	9-Sep-90	542.29	0.45	25-Aug-90	540.14	0.4

Table 4: Raw Data for Figure 1(continuation)

W9			W14			W15		
Date_w3	weeks	Ra226-Tot	Date_W4	weeks	Ra226-Tot	Date_W5	weeks	Ra226-Tot
15-Jul-94	743	0.15	11-Dec-90	555.57	0.5	9-Sep-90	542.29	0.4
12-Aug-94	747	0.17	20-Jan-91	561.29	0.35	25-Oct-90	548.86	0.45
23-Sep-94	753	0.17	5-Feb-91	563.57	0.3	11-Nov-90	551.29	0.6
23-Oct-94	757.28571	0.15	14-Mar-91	568.86	0.14	11-Dec-90	555.57	0.55
7-Dec-94	763.71429	0.3	25-Apr-91	574.86	0.25	20-Jan-91	561.29	0.65
17-Jan-95	769.57143	0.19	19-May-91	578.29	0.4	5-Feb-91	563.57	0.6
17-Jun-95	791.14286	0.19	10-Jun-91	581.43	0.45	14-Mar-91	568.86	0.45
17-Jul-95	795.42857	0.45	22-Jun-91	583.14	0.45	18-Apr-91	573.86	0.3
14-Aug-95	799.42857	0.15	18-Jul-91	586.86	0.5	19-May-91	578.29	0.35
7-Oct-95	807.14286	0.18	2-Aug-91	589.00	0.35	10-Jun-91	581.43	0.35
30-Nov-95	814.85714	0.15	3-Aug-91	589.14	0.5	22-Jun-91	583.14	0.35
10-Dec-95	816.28571	0.17	15-Sep-91	595.29	0.7	18-Jul-91	586.86	0.3
22-Jan-96	822.42857	0.35	25-Sep-91	596.71	0.45	2-Aug-91	589.00	0.3
19-Feb-96	826.42857	0.17	26-Nov-91	605.57	0.13	3-Aug-91	589.14	0.3
17-Mar-96	830.28571	0.07	23-Dec-91	609.43	0.2	15-Sep-91	595.29	0.45
11-Apr-96	833.85714	0.25	5-Jan-92	611.29	0.12	25-Sep-91	596.71	0.4
31-May-96	841	0.25	18-Feb-92	617.57	0.5	26-Oct-91	601.14	0.4
8-Jun-96	842.14286	0.2	28-May-92	631.86	0.35	9-Nov-91	603.14	0.5
17-Jul-96	847.71429	0.09	18-Jun-92	634.86	0.3	23-Dec-91	609.43	0.45
13-Aug-96	851.57143	0.3	18-Jul-92	639.14	0.55	4-Jan-92	611.14	0.3
19-Sep-96	856.85714	0.35	4-Aug-92	641.57	0.5	18-Feb-92	617.57	0.25
16-Dec-96	869.42857	0.3	18-Sep-92	648.00		6-Mar-92	620.00	0.35
3-Jan-97	872	0.25	8-Dec-92	659.57	0.18	7-Apr-92	624.57	0.25
28-Feb-97	880	0.3	2-Jan-93	663.14	0.65	28-May-92	631.86	0.4
8-Mar-97	881.14286	0.21	1-Feb-93	667.43	0.65	18-Jun-92	634.86	0.25
7-May-97	889.71429	0.14	20-Mar-93	674.14	0.6	18-Jul-92	639.14	0.3
6-Jun-97	894	0.27	9-Apr-93	677.00	0.18	4-Aug-92	641.57	0.35
9-Jul-97	898.71429	0.35	30-May-93	684.29	0.3	18-Sep-92	648.00	0.25
11-Aug-97	903.42857	0.49	5-Jun-93	685.14	0.35	28-Oct-92	653.71	0.4
4-Sep-97	906.85714	0.43	27-Jul-93	692.57	0.35	25-Nov-92	657.71	0.35
3-Oct-97	911	0.41	19-Aug-93	695.86	0.3	8-Dec-92	659.57	0.35
18-Nov-97	917.57143	0.41	25-Sep-93	701.14	0.25	2-Jan-93	663.14	0.45
12-Jan-98	925.43	0.3	18-Nov-93	708.86	0.2	1-Feb-93	667.43	0.55
23-Mar-98	935.43	0.19	7-Dec-93	711.57	0.3	20-Mar-93	674.14	0.55
5-Apr-98	937.29	0.91	22-Jan-94	718.14	0.35	9-Apr-93	677.00	0.3
14-May-98	942.86	0.25	13-Feb-94	721.29	0.45	17-May-93	682.43	0.25
11-Jun-98	946.86	0.18	13-Mar-94	725.29	0.5	5-Jun-93	685.14	0.3
10-Jul-98	951.00	0.36	7-Apr-94	728.86	0.2	27-Jul-93	692.57	0.25
6-Aug-98	954.86	0.36	28-Jun-94	740.57	0.25	18-Aug-93	695.71	0.25
8-Sep-98	959.57	0.34	15-Jul-94	743.00	0.17	25-Sep-93	701.14	0.2
			12-Aug-94	747.00	0.25	31-Oct-93	706.29	0.2
			23-Sep-94	753.00	0.4	18-Nov-93	708.86	0.3

Table 4: Raw Data for Figure 1(continuation)

W9			W14			W15		
Date_w3	weeks	Ra226-Tot	Date_W4	weeks	Ra226-Tot	Date_W5	weeks	Ra226-Tot
			23-Oct-94	757.29	0.4	7-Dec-93	711.57	0.3
			7-Dec-94	763.71	0.35	3-Jan-94	715.43	0.3
			17-Jan-95	769.57	0.75	13-Feb-94	721.29	0.3
			25-Feb-95	775.14	0.7	13-Mar-94	725.29	0.4
			13-Mar-95	777.43	1	7-Apr-94	728.86	0.5
			9-Apr-95	781.29	0.75	9-May-94	733.43	0.14
			17-Jun-95	791.14	0.35	6-Jun-94	737.43	0.2
			17-Jul-95	795.43	0.3	28-Jun-94	740.57	0.2
			14-Aug-95	799.43	0.45	15-Jul-94	743.00	0.16
			7-Oct-95	807.14	0.4	12-Aug-94	747.00	0.3
			30-Nov-95	814.86	0.35	23-Sep-94	753.00	0.3
			7-Dec-95	815.86	0.35	23-Oct-94	757.29	0.3
			21-Jan-96	822.29	0.9	21-Nov-94	761.43	0.3
			19-Feb-96	826.43	1.1	7-Dec-94	763.71	
			17-Mar-96	830.29	0.75	17-Jan-95	769.57	0.35
			11-Apr-96	833.86	0.55	25-Feb-95	775.14	0.6
			31-May-96	841.00	0.2	13-Mar-95	777.43	0.8
			8-Jun-96	842.14	0.25	9-Apr-95	781.29	0.75
			17-Jul-96	847.71	0.25	4-May-95	784.86	0.7
			2-Aug-96	850.00	0.2	17-Jun-95	791.14	0.3
			19-Sep-96	856.86	0.3	17-Jul-95	795.43	0.4
			16-Dec-96	869.43	0.4	3-Aug-95	797.86	0.25
			30-Jan-97	875.86	1	15-Sep-95	804.00	0.2
			22-Feb-97	879.14	0.95	7-Oct-95	807.14	0.25
			8-Mar-97	881.14	0.7	6-Nov-95	811.43	0.25
			10-Apr-97	885.86	0.79	7-Dec-95	815.86	0.4
			7-May-97	889.71	0.16	21-Jan-96	822.29	0.4
			6-Jun-97	894.00	0.32	19-Feb-96	826.43	0.5
			9-Jul-97	898.71	0.28	17-Mar-96	830.29	0.55
			11-Aug-97	903.43	0.25	11-Apr-96	833.86	0.7
			4-Sep-97	906.86	0.32	11-May-96	838.14	0.17
			2-Oct-97	910.86	0.34	8-Jun-96	842.14	0.3
			8-Nov-97	916.14	0.52	17-Jul-96	847.71	0.19
			12-Jan-98	925.43	0.51	2-Aug-96	850.00	0.18
			23-Mar-98	935.43	0.86	19-Sep-96	856.86	0.25
			5-Apr-98	937.29	0.94	25-Oct-96	862.00	0.2
			14-May-98	942.86	0.32	11-Nov-96	864.43	0.25
			11-Jun-98	946.86	0.19	16-Dec-96	869.43	0.25
			10-Jul-98	951.00	0.21	30-Jan-97	875.86	0.4
			6-Aug-98	954.86	0.15	21-Feb-97	879.00	0.5
			8-Sep-98	959.57	0.2	8-Mar-97	881.14	0.5
						10-Apr-97	885.86	0.63

Table 4: Raw Data for Figure 1(continuation)

W9			W14			W15		
Date_w3	weeks	Ra226-Tot	Date_W4	weeks	Ra226-Tot	Date_W5	weeks	Ra226-Tot
						7-May-97	889.71	0.2
						6-Jun-97	894.00	0.25
						9-Jul-97	898.71	0.24
						7-Aug-97	902.86	0.24
						4-Sep-97	906.86	0.29
						2-Oct-97	910.86	0.3
						18-Nov-97	917.57	0.4
						14-Dec-97	921.29	0.445
						12-Jan-98	925.43	0.48
						26-Feb-98	931.86	0.58
						23-Mar-98	935.43	0.61
						5-Apr-98	937.29	0.63
						14-May-98	942.86	0.31
						11-Jun-98	946.86	0.2
						10-Jul-98	951.00	0.27
						6-Aug-98	954.86	0.13
						8-Sep-98	959.57	

Table 4: Raw Data for Figure 1 (continuation)

W20			W25		
Date_W20	weeks	Ra226-Tot	Date_W25	weeks	Ra226-tot
1-Feb-88	406.43	0.14	18-Apr-80	0.00	0.519
23-Apr-88	418.14	0.12	29-Apr-80	1.57	
16-Jun-88	425.86	0.07	14-May-80	3.71	0.293
1-Aug-88	432.43	0.07	26-Jun-80	9.86	0.063
30-Aug-88	436.57	0.1	25-Jul-80	14.00	0.07
5-Jun-89	476.43	0.19	14-Sep-80	21.29	0.122
10-Jul-89	481.43	0.12	31-Oct-80	28.00	0.085
3-Aug-89	484.86	0.25	12-Dec-80	34.00	0.2
28-Aug-89	488.43	0.15	10-Jan-81	38.14	0.3
21-Sep-89	491.86	0.13	4-Feb-81	41.71	0.4
4-Nov-89	498.14	0.3	20-Mar-81	48.00	0.6
23-Dec-89	505.14	0.3	14-Apr-81	51.57	0.383
15-Jan-90	508.43	0.3	13-May-81	55.71	0.358
10-Feb-90	512.14	0.3	6-Jun-81	59.14	0.17
11-Mar-90	516.29	0.4	9-Jul-81	63.86	0.06
10-Apr-90	520.57	0.5	7-Aug-81	68.00	0.2
26-May-90	527.14	0.15	18-Sep-81	74.00	0.05
5-Jun-90	528.57	0.18	25-Nov-81	83.71	0.05
12-Jun-90	529.57	0.09	18-Feb-82	95.86	0.16
14-Jul-90	534.14	0.25	29-Apr-82	105.86	0.22
25-Aug-90	540.14	0.2	20-Aug-82	122.00	0.078
9-Sep-90	542.29	0.16	8-Nov-82	133.43	0.065
25-Oct-90	548.86	0.09	15-Feb-83	147.57	0.081
11-Dec-90	555.57	0.25	16-May-83	160.43	0.182
20-Jan-91	561.29	0.25	1-Aug-83	171.43	0.061
5-Feb-91	563.57	0.4	11-Nov-83	186.00	0.047
18-Apr-91	573.86	0.3	31-Jan-84	197.57	0.13
19-May-91	578.29	0.16	2-Mar-84	202.00	0.208
10-Jun-91	581.43	0.18	17-Apr-84	208.57	0.302
22-Jun-91	583.14	0.11	16-May-84	212.71	0.21
18-Jul-91	586.86	0.25	24-Jun-84	218.29	0.057
2-Aug-91	589.00	0.17	16-Jul-84	221.43	0.053
3-Aug-91	589.14	0.17	15-Aug-84	225.71	0.081
23-Sep-91	596.43	0.12	15-Sep-84	230.14	0.11
26-Oct-91	601.14	0.13	12-Oct-84	234.00	0.085
9-Nov-91	603.14	0.16	18-Nov-84	239.29	0.109
23-Dec-91	609.43	0.19	17-Dec-84	243.43	0.056
5-Jan-92	611.29	0.2	8-Jan-85	246.57	0.073
18-Feb-92	617.57	0.16	16-Feb-85	252.14	0.075
6-Mar-92	620.00	0.17	12-Mar-85	255.57	0.11
7-Apr-92	624.57	0.9	11-Apr-85	259.86	0.122
28-May-92	631.86	0.14	2-May-85	262.86	0.211

Table 4: Raw Data for Figure 1 (continuation)

W20			W25		
Date_W20	weeks	Ra226-Tot	Date_W25	weeks	Ra226-tot
17-Jun-92	634.71		13-Jun-85	268.86	0.043
18-Jun-92	634.86	0.14	17-Jul-85	273.71	0.045
18-Jul-92	639.14	0.2	29-Jul-85	275.43	0.105
4-Aug-92	641.57	0.13	31-Aug-85	280.14	0.051
20-Sep-92	648.29		21-Oct-85	287.43	0.024
25-Nov-92	657.71	0.13	18-Nov-85	291.43	0.027
8-Dec-92	659.57	0.2	30-Jan-86	301.86	0.152
2-Jan-93	663.14	0.4	6-May-86	315.57	0.2
1-Feb-93	667.43	0.45	28-Jul-86	327.43	0.086
20-Mar-93	674.14	0.1	7-Nov-86	342.00	0.027
9-Apr-93	677.00	0.25	13-Feb-87	356.00	0.051
30-May-93	684.29	0.16	12-May-87	368.57	0.058
5-Jun-93	685.14	0.17	16-Jul-87	377.86	0.035
27-Jul-93	692.57	0.2	8-Oct-87	389.86	0.029
18-Aug-93	695.71	0.2	2-Feb-88	406.57	0.063
25-Sep-93	701.14	0.11	22-Mar-88	413.57	0.12
18-Nov-93	708.86	0.2	13-May-88	421.00	0.11
7-Dec-93	711.57	0.3	12-Jul-88	429.57	0.04
22-Jan-94	718.14	0.3	27-Aug-88	436.14	0.01
13-Feb-94	721.29	0.35	23-Sep-88	440.00	0.03
13-Mar-94	725.29	0.1	20-Feb-89	461.43	0.11
9-Apr-94	729.14	0.25	27-Mar-89	466.43	0.09
31-May-94	736.57	0.15	30-Jun-89	480.00	0.06
28-Jun-94	740.57	0.1	2-Jul-89	480.29	
15-Jul-94	743.00	0.12	5-Aug-89	485.14	0.06
12-Aug-94	747.00	0.09	28-Aug-89	488.43	0.06
23-Sep-94	753.00	0.08	23-Sep-89	492.14	0.04
23-Oct-94	757.29	0.09	16-Oct-89	495.43	0.04
21-Nov-94	761.43	0.16	10-Feb-90	512.14	0.25
7-Dec-94	763.71	0.3	8-Mar-90	515.86	0.3
17-Jan-95	769.57	0.2	29-Mar-90	518.86	0.1
25-Feb-95	775.14	0.3	5-May-90	524.14	0.13
17-Jun-95	791.14	0.12	1-Jun-90	528.00	0.09
17-Jul-95	795.43	0.13	1-Jul-90	532.29	0.05
14-Aug-95	799.43	0.09	8-Jul-90	533.29	0.05
7-Oct-95	807.14	0.08	9-Aug-90	537.86	0.06
30-Nov-95	814.86	0.17	25-Sep-90	544.57	0.05
10-Dec-95	816.29	0.25	11-Oct-90	546.86	0.04
22-Jan-96	822.43	0.25	22-Nov-90	552.86	0.05
17-Mar-96	830.29	0.3	7-Dec-90	555.00	0.06
11-Apr-96	833.86	0.16	6-Jan-91	559.29	0.11
31-May-96	841.00	0.1	15-Feb-91	565.00	0.18

Table 4: Raw Data for Figure 1 (continuation)

W20			W25		
Date_W20	weeks	Ra226-Tot	Date_W25	weeks	Ra226-tot
8-Jun-96	842.14	0.1	9-Apr-91	572.57	0.25
17-Jul-96	847.71	0.25	6-Jul-91	585.14	0.05
13-Aug-96	851.57	0.08	26-Jul-91	588.00	0.08
19-Sep-96	856.86	0.07	28-Aug-91	592.71	0.05
16-Dec-96	869.43	0.16	21-Oct-91	600.43	0.05
30-Jan-97	875.86	0.19	21-Nov-91	604.86	0.04
22-Feb-97	879.14	0.25	30-Jan-92	614.86	0.14
8-Mar-97	881.14	0.24	1-Apr-92	623.71	0.15
10-Apr-97	885.86	0.23	14-Jul-92	638.57	0.03
7-May-97	889.71	0.1	30-Aug-92	645.29	0.05
6-Jun-97	894.00	0.09	6-Feb-93	668.14	0.12
9-Jul-97	898.71	0.11	15-Apr-93	677.86	0.25
7-Aug-97	902.86	0.13	25-Jun-93	688.00	0.03
4-Sep-97	906.86	0.08	16-Jul-93	691.00	0.04
2-Oct-97	910.86	0.1	13-Sep-93	699.43	0.04
18-Nov-97	917.57	0.2	17-Feb-94	721.86	0.2
12-Jan-98	925.43	0.21	9-Apr-94	729.14	0.2
26-Feb-98	931.86	0.32	23-Jul-94	744.14	0.04
23-Mar-98	935.43	0.7	2-Sep-94	750.00	0.11
5-Apr-98	937.29	0.3	17-Feb-95	774.00	0.19
14-May-98	942.86	0.13	8-Apr-95	781.14	0.17
11-Jun-98	946.86	0.09	18-Jul-95	795.57	0.04
10-Jul-98	951.00	0.13	21-Sep-95	804.86	0.05
6-Aug-98	954.86	0.06	5-Jan-96	820.00	0.08
8-Sep-98	959.57	0.04	17-Feb-96	826.14	0.17
			16-Mar-96	830.14	0.2
			12-Apr-96	834.00	0.3
			7-May-96	837.57	0.04
			19-Jun-96	843.71	0.07
			19-Jul-96	848.00	0.04
			15-Aug-96	851.86	0.05
			13-Sep-96	856.00	0.04
			25-Oct-96	862.00	0.04
			12-Nov-96	864.57	0.03
			10-Jan-97	873.00	0.09
			18-Feb-97	878.57	0.1
			19-Mar-97	882.71	0.15
			3-Apr-97	884.86	0.11
			6-May-97	889.57	0.15
			2-Jun-97	893.43	0.09
			2-Jul-97	897.71	0.04
			22-Jul-97	900.57	0.02

Table 4: Raw Data for Figure 1 (continuation)

W20			W25		
Date_W20	weeks	Ra226-Tot	Date_W25	weeks	Ra226-tot
			23-Aug-97	905.14	0.06
			2-Sep-97	906.57	0.09
			30-Sep-97	910.57	0.05
			28-Oct-97	914.57	0.06
			14-Dec-97	921.29	0.08
			4-Jan-98	924.29	0.08
			7-Feb-98	929.14	0.12
			7-Mar-98	933.14	0.13
			18-Apr-98	939.14	0.17
			1-May-98	941.00	0.16
			9-Jun-98	946.57	0.04
			7-Jul-98	950.57	0.06
			6-Aug-98	954.86	0.07
			1-Sep-98	958.57	0.05
			4-Oct-98	963.29	0.02

Table 5: Raw Data for Figure 2

W3			W4			W5		
Date_W3	Weeks	U-tot	Date_W4	Weeks	U-tot	Date_W5	Weeks	U-tot
18-Apr-80	0.00		18-Apr-80	0.00		21-Jan-85	248.43	1.75
19-Jul-80	13.14	0.052	19-Jul-80	13.14		21-Jan-85	248.43	0.6
5-Oct-80	24.29	3.54	05-Oct-80	24.29	0.32	01-Feb-85	250.00	
10-Jan-81	38.14	1.32	31-Jan-81	41.14	0.439	21-Feb-85	252.86	0.8
18-Apr-81	52.14	2.01	04-May-81	54.43	0.232	27-Mar-85	257.71	
9-Jul-81	63.86	3.2	10-Jul-81	64.00	0.261	30-Mar-85	258.14	0.635
26-Oct-81	79.43	2.9	26-Oct-81	79.43	0.11	11-Apr-85	259.86	0.635
23-Jan-82	92.14	2.6	29-Apr-82	105.86	0.385	16-Apr-85	260.57	0.7
3-Apr-82	102.14	1.6	13-Oct-82	129.71	0.185	09-May-85	263.86	5.35
13-Oct-82	129.71	4.5	28-Feb-83	149.43	0.042	09-May-85	263.86	4.7
24-Jan-83	144.43	2.5	10-Apr-83	155.29	0.22	20-Jun-85	269.86	2.8
10-Apr-83	155.29	1.9	14-Jul-83	168.86	0.13	20-Jun-85	269.86	1.75
14-Jul-83	168.86	3.5	14-Oct-83	182.00	0.12	08-Jul-85	272.43	0.79
14-Oct-83	182.00	4.7	21-Jan-84	196.14	0.016	09-Jul-85	272.57	0.95
19-Jan-84	195.86	4	18-Feb-84	200.14		30-Jul-85	275.57	2.4
18-Feb-84	200.14	3.4	20-Mar-84	204.57	0.27	05-Aug-85	276.43	4.15
20-Mar-84	204.57	3.8	09-May-84	211.71	0.085	15-Aug-85	277.86	3.7
11-May-84	212.00	3.75	09-Jun-84	216.14	0.0815	14-Sep-85	282.14	7.5
9-Jun-84	216.14	4.1	09-Aug-84	224.86	0.0435	19-Sep-85	282.86	3.4
9-Aug-84	224.86	5.5	14-Sep-84	230.00	0.125	21-Oct-85	287.43	4.2
14-Sep-84	230.00	8.15	11-Oct-84	233.86	0.079	10-Nov-85	290.29	3.8
11-Oct-84	233.86	4.8	09-Nov-84	238.00		16-Dec-85	295.43	4
9-Nov-84	238.00	4.7	07-Dec-84	242.00	0.0325	16-Jan-86	299.86	6.8
7-Dec-84	242.00	4.95	21-Jan-85	248.43	0.031	17-Jan-86	300.00	5.5
21-Jan-85	248.43	4.5	30-Mar-85	258.14	0.14	13-Feb-86	303.86	3
30-Mar-85	258.14	4.3	11-Apr-85	259.86	0.024	26-Feb-86	305.71	0.019
11-Apr-85	259.86	2.3	09-May-85	263.86	0.0418	16-Mar-86	308.29	0.019
9-May-85	263.86	21.5	08-Jun-85	268.14	0.042	17-Mar-86	308.43	0.014
8-Jun-85	268.14	4.575	08-Jul-85	272.43	0.025	07-Apr-86	311.43	2.6
8-Jul-85	272.43	7.6	05-Aug-85	276.43	0.084	17-Apr-86	312.86	0.85
5-Aug-85	276.43	8.9	05-Sep-85	280.86	0.17	20-May-86	317.57	3.7
5-Sep-85	280.86	18	10-Oct-85	285.86	0.0715	20-May-86	317.57	0.51
10-Oct-85	285.86	7.6	10-Nov-85	290.29	0.042	10-Jun-86	320.57	1.82
10-Nov-85	290.29	6.2	05-Dec-85	293.86	0.065	13-Jun-86	321.00	3.4
5-Dec-85	293.86	5	30-Jan-86	301.86	0.021	15-Jul-86	325.57	3.9
11-Jun-86	320.71	6.45	25-Feb-86	305.57	0.018	15-Jul-86	325.57	6.1
11-Jul-86	325.00	20	16-Mar-86	308.29	0.027	04-Aug-86	328.43	2.9
4-Aug-86	328.43	7.6	04-Apr-86	311.00	0.074	14-Sep-86	334.29	3.8
14-Sep-86	334.29	15	11-Jun-86	320.71	0.036	25-Sep-86	335.86	4.4
20-Oct-86	339.43	8.2	11-Jul-86	325.00	0.054	20-Oct-86	339.43	4.6
8-Nov-86	342.14	7	04-Aug-86	328.43	0.14	08-Nov-86	342.14	5.2
4-Dec-86	345.86	6.1	14-Sep-86	334.29	0.14	19-Nov-86	343.71	5.5

Table 5: Raw Data for Figure 2 (continuation)

W3			W4			W5		
Date_W3	Weeks	U-tot	Date_W4	Weeks	U-tot	Date_W5	Weeks	U-tot
9-Jan-87	351.00	5.3	20-Oct-86	339.43	0.076	04-Dec-86	345.86	5.9
19-Feb-87	356.86	3.45	08-Nov-86	342.14	0.09	09-Jan-87	351.00	1.75
4-Mar-87	358.71	2.8	04-Dec-86	345.86	0.044	19-Feb-87	356.86	1.4
8-Apr-87	363.71	3	09-Jan-87	351.00	0.013	04-Mar-87	358.71	1.5
6-May-87	367.71	8.9	19-Feb-87	356.86	0.008	08-Apr-87	363.71	0.755
13-Jun-87	373.14	8.6	04-Mar-87	358.71	0.017	07-May-87	367.86	2.3
18-Jul-87	378.14	6.7	08-Apr-87	363.71	0.018	13-Jun-87	373.14	2.1
9-Aug-87	381.29	4.6	06-May-87	367.71	0.025	18-Jul-87	378.14	1.6
11-Sep-87	386.00	4.8	13-Jun-87	373.14	0.026	09-Aug-87	381.29	2.2
11-Oct-87	390.29	4.2	18-Jul-87	378.14	0.03	11-Sep-87	386.00	1
20-Nov-87	396.00	6.6	09-Aug-87	381.29	0.02	11-Oct-87	390.29	0.6
5-Dec-87	398.14	5.25	11-Sep-87	386.00	0.007	20-Nov-87	396.00	2
7-Jan-88	402.86	3	11-Oct-87	390.29	0.012	05-Dec-87	398.14	1.2
11-Feb-88	407.86	5.5	20-Nov-87	396.00	0.014	07-Jan-88	402.86	0.56
13-Mar-88	412.29	2.75	05-Dec-87	398.14	0.005	11-Feb-88	407.86	2
9-Apr-88	416.14	2.81	07-Jan-88	402.86	0.005	13-Mar-88	412.29	0.83
7-May-88	420.14	28	11-Feb-88	407.86	0.0092	09-Apr-88	416.14	0.708
18-Jun-88	426.14	6.51	13-Mar-88	412.29	0.0051	07-May-88	420.14	9.65
2-Jul-88	428.14	7.1	09-Apr-88	416.14	0.0041	18-Jun-88	426.14	3.36
13-Aug-88	434.14	8.25	07-May-88	420.14	0.074	03-Jul-88	428.29	3
7-Sep-88	437.71	9	18-Jun-88	426.14	0.07	13-Aug-88	434.14	4.7
20-Oct-88	443.86	5.7	02-Jul-88	428.14	0.04	07-Sep-88	437.71	3
19-Nov-88	448.14	6.95	13-Aug-88	434.14	0.053	20-Oct-88	443.86	1.05
3-Dec-88	450.14	4.75	07-Sep-88	437.71	0.028	19-Nov-88	448.14	1.42
14-Jan-89	456.14	3.95	20-Oct-88	443.86	0.0155	03-Dec-88	450.14	0.695
9-Feb-89	459.86	4.9	19-Nov-88	448.14	0.015	14-Jan-89	456.14	0.95
1-Mar-89	462.71	2.5	03-Dec-88	450.14	0.007	09-Feb-89	459.86	0.806
6-Apr-89	467.86	3.36	14-Jan-89	456.14	0.0072	01-Mar-89	462.71	0.59
30-May-89	475.57	10.5	09-Feb-89	459.86	0.006	06-Apr-89	467.86	0.776
4-Jun-89	476.29	9.6	01-Mar-89	462.71	0.0033	30-May-89	475.57	2.33
5-Jun-89	476.43	10.8	06-Apr-89	467.86	0.0039	04-Jun-89	476.29	2.9
13-Jul-89	481.86	13.67	30-May-89	475.57	0.029	13-Jul-89	481.86	7.03
12-Aug-89	486.14	11.2	04-Jun-89	476.29	0.024	12-Aug-89	486.14	6.45
11-Sep-89	490.43	15.4	13-Jul-89	481.86	0.165	11-Sep-89	490.43	6.85
7-Oct-89	494.14	8.2	12-Aug-89	486.14	0.132	07-Oct-89	494.14	5.5
2-Nov-89	497.86	7.9	11-Sep-89	490.43	0.168	02-Nov-89	497.86	5.2
17-Dec-89	504.29	6.56	07-Oct-89	494.14	0.154	17-Dec-89	504.29	6.77
11-Jan-90	507.86	5.65	02-Nov-89	497.86	0.05	11-Jan-90	507.86	5.2
25-Feb-90	514.29	5.27	17-Dec-89	504.29	0.03	25-Feb-90	514.29	5.27
11-Mar-90	516.29	4.2	11-Jan-90	507.86	0.062	11-Mar-90	516.29	3.8
17-Apr-90	521.57	4.45	17-Apr-90	521.57	0.048	17-Apr-90	521.57	2.15
6-May-90	524.29	8.9	06-May-90	524.29	0.036	06-May-90	524.29	4.33

Table 5: Raw Data for Figure 2 (continuation)

W3			W4			W5		
Date_W3	Weeks	U-tot	Date_W4	Weeks	U-tot	Date_W5	Weeks	U-tot
3-Jun-90	528.29	6.87	03-Jun-90	528.29	0.065	03-Jun-90	528.29	3.7
14-Jul-90	534.14	8.9	14-Jul-90	534.14	0.07	14-Jul-90	534.14	4.8
25-Aug-90	540.14	9.85	25-Aug-90	540.14	0.06	25-Aug-90	540.14	5.3
9-Sep-90	542.29	7.4	09-Sep-90	542.29	0.058	09-Sep-90	542.29	3.43
20-Oct-90	548.14	8.43	20-Oct-90	548.14	0.04	20-Oct-90	548.14	3.3
19-Nov-90	552.43	6.73	19-Nov-90	552.43	0.044	19-Nov-90	552.43	2.7
8-Dec-90	555.14	6.83	08-Dec-90	555.14	0.038	08-Dec-90	555.14	3.4
10-Jan-91	559.86	5.88	10-Jan-91	559.86	0.033	10-Jan-91	559.86	2.26
5-Feb-91	563.57	5.35	05-Feb-91	563.57	0.034	05-Feb-91	563.57	1.89
10-Mar-91	568.29	4.52	10-Mar-91	568.29	0.016	10-Mar-91	568.29	0.609
16-Apr-91	573.57	11.2	16-Apr-91	573.57	0.026	16-Apr-91	573.57	5.05
18-May-91	578.14	12.1	18-May-91	578.14	0.047	18-May-91	578.14	5.14
22-Jun-91	583.14	11.45	10-Jun-91	581.43	0.052	22-Jun-91	583.14	3.28
19-Jul-91	587.00	6.4	22-Jun-91	583.14	0.064	19-Jul-91	587.00	3.12
3-Aug-91	589.14	10	19-Jul-91	587.00	0.052	03-Aug-91	589.14	6.25
10-Sep-91	594.57	16.3	02-Aug-91	589.00	0.053	16-Aug-91	591.00	3.6
27-Oct-91	601.29	9.3	03-Aug-91	589.14	0.051	10-Sep-91	594.57	2.1
9-Nov-91	603.14	9.45	10-Sep-91	594.57	0.029	27-Oct-91	601.29	4.9
15-Dec-91	608.29	7.55	27-Oct-91	601.29	0.068	09-Nov-91	603.14	5.15
4-Jan-92	611.14	7	09-Nov-91	603.14	0.063	15-Dec-91	608.29	1.23
18-Feb-92	617.57	5.2	15-Dec-91	608.29	0.015	05-Jan-92	611.29	4.2
6-Mar-92	620.00	4.75	04-Jan-92	611.14	0.022	18-Feb-92	617.57	3.7
20-Apr-92	626.43	5.15	22-Feb-92	618.14	0.013	06-Mar-92	620.00	0.808
17-May-92	630.29	9.6	06-Mar-92	620.00	0.011	20-Apr-92	626.43	1.39
6-Jun-92	633.14	8.4	20-Apr-92	626.43	0.016	17-May-92	630.29	2.4
14-Jul-92	638.57	5.55	17-May-92	630.29	0.027	06-Jun-92	633.14	4.65
15-Aug-92	643.14	9.95	06-Jun-92	633.14	0.04	14-Jul-92	638.57	1.32
18-Sep-92	648.00		14-Jul-92	638.57	0.03	15-Aug-92	643.14	4.6
13-Oct-92	651.57		15-Aug-92	643.14	0.02	18-Sep-92	648.00	7.45
12-Nov-92	655.86	9.8	18-Sep-92	648.00		13-Oct-92	651.57	7.7
5-Dec-92	659.14	8.05	13-Oct-92	651.57		12-Nov-92	655.86	4.7
3-Jan-93	663.29	7.2	12-Nov-92	655.86	0.028	05-Dec-92	659.14	4.05
3-Feb-93	667.71	6.1	29-Nov-92	658.29	0.021	03-Jan-93	663.29	3.74
18-Mar-93	673.86	5.4	05-Dec-92	659.14	0.022	03-Feb-93	667.71	3.75
19-Apr-93	678.43	5.25	03-Jan-93	663.29	0.033	18-Mar-93	673.86	4.1
8-May-93	681.14	8.05	03-Feb-93	667.71	0.035	19-Apr-93	678.43	0.97
6-Jun-93	685.29	5.5	18-Mar-93	673.86	0.025	08-May-93	681.14	5.3
18-Jul-93	691.29	7.95	19-Apr-93	678.43	0.011	06-Jun-93	685.29	1.48
10-Aug-93	694.57	14	08-May-93	681.14	0.038	18-Jul-93	691.29	4
25-Sep-93	701.14	7.15	06-Jun-93	685.29	0.019	10-Aug-93	694.57	5.4
13-Oct-93	703.71	7.2	18-Jul-93	691.29	0.014	25-Sep-93	701.14	4.05
14-Nov-93	708.29	6.6	10-Aug-93	694.57	0.014	13-Oct-93	703.71	2.27

Table 5: Raw Data for Figure 2 (continuation)								
W3			W4			W5		
Date_W3	Weeks	U-tot	Date_W4	Weeks	U-tot	Date_W5	Weeks	U-tot
5-Dec-93	711.29	6.25	25-Sep-93	701.14	0.024	14-Nov-93	708.29	1.86
3-Jan-94	715.43	5.85	13-Oct-93	703.71	0.021	05-Dec-93	711.29	4.7
27-Feb-94	723.29	5.4	14-Nov-93	708.29	0.012	03-Jan-94	715.43	4.6
9-Mar-94	724.71	4.85	05-Dec-93	711.29	0.017	27-Feb-94	723.29	2.37
8-Apr-94	729.00	4.55	03-Jan-94	715.43	0.024	09-Mar-94	724.71	1.23
24-May-94	735.57	10.2	27-Feb-94	723.29	0.015	08-Apr-94	729.00	2.11
6-Jun-94	737.43	11	09-Mar-94	724.71	0.0096	24-May-94	735.57	3.63
3-Jul-94	741.29	7.85	08-Apr-94	729.00	0.0031	06-Jun-94	737.43	4.05
2-Aug-94	745.57	6.85	24-May-94	735.57	0.028	03-Jul-94	741.29	1.57
24-Sep-94	753.14	7	06-Jun-94	737.43	0.025	02-Aug-94	745.57	2.81
20-Oct-94	756.86	6.4	03-Jul-94	741.29	0.02	24-Sep-94	753.14	1.68
4-Nov-94	759.00	7	02-Aug-94	745.57	0.05	20-Oct-94	756.86	3.33
7-Dec-94	763.71	6.15	24-Sep-94	753.14	0.017	04-Nov-94	759.00	
3-Jan-95	767.57	5.45	20-Oct-94	756.86	0.047	03-Jan-95	767.57	3.8
23-Feb-95	774.86	5.05	04-Nov-94	759.00	0.054	23-Feb-95	774.86	3.35
4-Mar-95	776.14	5.05	07-Dec-94	763.71	0.015	04-Mar-95	776.14	1.78
7-Apr-95	781.00	4.65	03-Jan-95	767.57	0.024	07-Apr-95	781.00	3.04
21-May-95	787.29	7.85	23-Feb-95	774.86	0.023	21-May-95	787.29	3.17
17-Jun-95	791.14	5.35	04-Mar-95	776.14	0.022	17-Jun-95	791.14	1.44
2-Jul-95	793.29	6.025	07-Apr-95	781.00	0.024	01-Jul-95	793.14	1.57
9-Aug-95	798.71	9.3	21-May-95	787.29	0.028	09-Aug-95	798.71	1.47
14-Aug-95	799.43	11.9	17-Jun-95	791.14	0.018	14-Aug-95	799.43	4.75
1-Sep-95	802.00	18.4	02-Jul-95	793.29	0.015	01-Sep-95	802.00	5.65
8-Sep-95	803.00	14.4	09-Aug-95	798.71	0.044	08-Sep-95	803.00	6
7-Oct-95	807.14	15	14-Aug-95	799.43	0.014	07-Oct-95	807.14	10.2
4-Nov-95	811.14	10.6	01-Sep-95	802.00	0.023	04-Nov-95	811.14	5.7
4-Dec-95	815.43	9.1	08-Sep-95	803.00	0.02	04-Dec-95	815.43	5.2
19-Jan-96	822.00	7	07-Oct-95	807.14	0.036	19-Jan-96	822.00	7.2
17-Feb-96	826.14	6.3	04-Nov-95	811.14	0.029	17-Feb-96	826.14	6.5
10-Mar-96	829.29	6.4	04-Dec-95	815.43	0.023	10-Mar-96	829.29	6.5
29-Apr-96	836.43		19-Jan-96	822.00	0.016	29-Apr-96	836.43	
19-May-96	839.29	10	17-Feb-96	826.14	0.017	19-May-96	839.29	6.3
23-Jun-96	844.29	8.9	10-Mar-96	829.29	0.013	23-Jun-96	844.29	1.95
19-Jul-96	848.00	8.3	29-Apr-96	836.43		19-Jul-96	848.00	2.04
8-Aug-96	850.86	6.5	19-May-96	839.29	0.039	08-Aug-96	850.86	6.4
5-Sep-96	854.86	12.1	23-Jun-96	844.29	0.016	05-Sep-96	854.86	6
20-Oct-96	861.29	15	19-Jul-96	848.00		20-Oct-96	861.29	10.2
7-Nov-96	863.86	13.7	08-Aug-96	850.86	0.196	06-Nov-96	863.71	9.65
10-Nov-96	864.29	13.3	05-Sep-96	854.86	0.022	07-Nov-96	863.86	1.91
1-Jan-97	871.71	1.54	20-Oct-96	861.29	0.042	10-Nov-96	864.29	4.25
30-Jan-97	875.86	9.6	07-Nov-96	863.86	0.019	01-Jan-97	871.71	5.4
23-Feb-97	879.29	8.4	10-Nov-96	864.29	0.015	30-Jan-97	875.86	7.9

Table 5: Raw Data for Figure 2 (continuation)

W3			W4			W5		
Date_W3	Weeks	U-tot	Date_W4	Weeks	U-tot	Date_W5	Weeks	U-tot
9-Mar-97	881.29	7.65	01-Jan-97	871.71	0.011	23-Feb-97	879.29	8
31-Mar-97	884.43	6.6	30-Jan-97	875.86		09-Mar-97	881.29	5.05
1-Apr-97	884.57	9.3	23-Feb-97	879.29	0.015	01-Apr-97	884.57	2.39
6-Apr-97	885.29	7.35	09-Mar-97	881.29	0.0093	19-Apr-97	887.14	0.588
12-Apr-97	886.14	6.05	01-Apr-97	884.57	0.012	09-May-97	890.00	3.6
27-Apr-97	888.29	5.75	08-May-97	889.86	0.058	08-Jun-97	894.29	3.65
8-May-97	889.86	6.6	09-May-97	890.00	0.056	07-Jul-97	898.43	1.63
9-May-97	890.00	6.9	08-Jun-97	894.29	0.015	09-Aug-97	903.14	0.024
11-May-97	890.29	7.1	06-Jul-97	898.29	0.018	05-Sep-97	907.00	0.045
18-May-97	891.29	7.85	08-Aug-97	903.00	0.013	16-Sep-97	908.57	0.124
25-May-97	892.29	9.9	05-Sep-97	907.00	0.04	24-Sep-97	909.71	
1-Jun-97	893.29	8.4	16-Sep-97	908.57	0.074	04-Oct-97	911.14	
8-Jun-97	894.29	9.8	01-Oct-97	910.71	0.042	14-Nov-97	917.00	8.85
15-Jun-97	895.29	7.3	14-Nov-97	917.00	0.04	13-Dec-97	921.14	
30-Jun-97	897.43	8.8	03-Dec-97	919.71		13-Dec-97	921.14	7.9
6-Jul-97	898.28571	9.05	26-Jan-98	927.43	0.02	26-Jan-98	927.43	1.6
13-Jul-97	899.28571	7.9	21-Apr-98	939.57	0.08	17-Feb-98	930.57	2
8-Aug-97	903	0.126	12-May-98	942.57	0.03	21-Apr-98	939.57	5.9
9-May-97	890	0.097	4-Jun-98	945.86	0.03	12-May-98	942.57	6.7
16-Sep-97	908.6	12.1	9-Jul-98	950.86	0.02	4-Jun-98	945.86	7.6
1-Oct-97	910.7	27.8	1-Aug-98	954.14	0.01	9-Jul-98	950.86	3.3
14-Nov-97	917	13.6	4-Sep-98	959.00	0.02	2-Aug-98	954.29	2
13-Dec-97	921.1					5-Sep-98	959.14	1.9
12-Jan-98	925.43	8.5						
17-Feb-98	930.57	7.2						
7-Mar-98	933.14	5.75						
4-Apr-98	937.14	5.7						
12-May-98	942.57	8.6						
4-Jun-98	945.86	6.15						
10-Jul-98	951.00	7						
1-Aug-98	954.14	7.7						
4-Sep-98	959.00	7.7						

Table 5: Raw Data for Figure 2 (continuation)

W9			W14			W15		
Date_W3	Weeks	U-tot	Date_W4	Weeks	U-tot	Date_W5	Weeks	U-tot
30-Jul-88	432.14286	3.8	17-Nov-86	343.43	0.86	18-Jan-87	352.29	0.75
30-Aug-88	436.57143	2.15	13-Dec-86	347.14	0.96	19-Feb-87	356.86	0.795
01-Sep-88	436.85714		18-Jan-87	352.29	0.59	04-Mar-87	358.71	0.72
22-Sep-88	439.85714	1.93	19-Feb-87	356.86	0.47	19-Apr-87	365.29	0.62
06-Jun-89	476.57143	2.1	04-Mar-87	358.71	0.71	07-May-87	367.86	0.55
05-Jul-89	480.71429	5.53	19-Apr-87	365.29	0.77	19-Jun-87	374.00	0.74
19-Jul-89	482.71429	1.4	07-May-87	367.86	0.8	25-Jun-87	374.86	0.54
01-Aug-89	484.57143	6	19-Jun-87	374.00	0.61	18-Jul-87	378.14	0.36
28-Aug-89	488.42857	5.25	18-Jul-87	378.14	0.4	10-Aug-87	381.43	0.395
20-Sep-89	491.71429	4	10-Aug-87	381.43	0.355	12-Sep-87	386.14	0.42
23-Dec-89	505.14286	4.09	12-Sep-87	386.14	0.47	11-Oct-87	390.29	0.39
15-Jan-90	508.42857	6.55	20-Nov-87	396.00	0.68	20-Nov-87	396.00	0.56
10-Feb-90	512.14286		05-Dec-87	398.14	0.72	05-Dec-87	398.14	0.54
09-Apr-90	520.42857	2.55	07-Jan-88	402.86	1.2	01-Feb-88	406.43	0.57
12-Jun-90	529.57143		11-Feb-88	407.86	0.72	16-Jun-88	425.86	0.276
10-Jun-91	581.42857	2.44	14-Mar-88	412.43	0.73	13-Aug-88	434.14	0.362
02-Aug-91	589	5.2	16-Jun-88	425.86	0.43	30-Aug-88	436.57	0.39
25-Sep-91	596.71429	2.02	02-Jul-88	428.14	0.46	07-Sep-88	437.71	0.45
05-Jan-92	611.28571	3.9	13-Aug-88	434.14	0.362	08-Oct-88	442.14	0.5
18-Feb-92	617.57143	4.2	13-Sep-88	438.57	0.43	20-Nov-88	448.29	0.784
28-May-92	631.85714	1.66	08-Oct-88	442.14	0.642	28-Dec-88	453.71	0.664
18-Jun-92	634.85714	2.87	28-Dec-88	453.71	0.986	25-Jan-89	457.71	0.937
18-Jul-92	639.14286	1.16	25-Jan-89	457.71	0.423	09-Feb-89	459.86	0.539
04-Aug-92	641.57143	0.987	09-Feb-89	459.86	0.427	01-Mar-89	462.71	0.64
20-Sep-92	648.28571	7.7	01-Mar-89	462.71	0.62	08-Apr-89	468.14	0.603
08-Dec-92	659.57143	5.3	08-Apr-89	468.14	0.677	09-May-89	472.57	0.539
02-Jan-93	663.14286	3.55	04-Jun-89	476.29	0.86	04-Jun-89	476.29	0.682
01-Feb-93	667.42857	5.4	12-Jul-89	481.71		12-Jul-89	481.71	
20-Mar-93	674.14286	1.06	19-Jul-89	482.71	1.1	19-Jul-89	482.71	0.898
09-Apr-93	677	1.61	12-Aug-89	486.14	0.967	12-Aug-89	486.14	0.899
30-May-93	684.28571	0.622	24-Sep-89	492.29	1.09	24-Sep-89	492.29	1.09
05-Jun-93	685.14286	1.77	13-Oct-89	495.00	1.4	07-Oct-89	494.14	1.15
27-Jul-93	692.57143	0.694	23-Dec-89	505.14	1.5	04-Nov-89	498.14	
19-Aug-93	695.85714	1.43	15-Jan-90	508.43	2.18	23-Dec-89	505.14	1.47
25-Sep-93	701.14286	2.49	10-Feb-90	512.14	1.31	15-Jan-90	508.43	1.93
18-Nov-93	708.85714	0.877	03-Mar-90	515.14	2.05	10-Feb-90	512.14	1.85
07-Dec-93	711.57143	1.42	09-Apr-90	520.43	1.83	03-Mar-90	515.14	2.04
22-Jan-94	718.14286	1.086	26-May-90	527.14	1.18	09-Apr-90	520.43	2.25
13-Feb-94	721.28571	3.6	05-Jun-90	528.57	1.29	06-May-90	524.29	1.5
13-Mar-94	725.28571	3.6	14-Jul-90	534.14	0.5	05-Jun-90	528.57	1.09
07-Apr-94	728.85714	1.26	25-Aug-90	540.14	0.436	14-Jul-90	534.14	0.469
28-Jun-94	740.57143	0.709	09-Sep-90	542.29	0.47	25-Aug-90	540.14	0.408

Table 5: Raw Data for Figure 2 (continuation)

W9			W14			W15		
Date_W3	Weeks	U-tot	Date_W4	Weeks	U-tot	Date_W5	Weeks	U-tot
15-Jul-94	743	0.706	11-Dec-90	555.57	0.65	09-Sep-90	542.29	0.49
12-Aug-94	747	1.17	20-Jan-91	561.29	1.85	25-Oct-90	548.86	0.695
23-Sep-94	753	0.694	05-Feb-91	563.57	1.48	11-Nov-90	551.29	0.779
23-Oct-94	757.28571	1.08	14-Mar-91	568.86	0.648	11-Dec-90	555.57	0.84
07-Dec-94	763.71429	1.61	25-Apr-91	574.86	0.629	20-Jan-91	561.29	1.38
17-Jan-95	769.57143	4.4	19-May-91	578.29	0.968	05-Feb-91	563.57	1.47
17-Jun-95	791.14286	1.03	10-Jun-91	581.43	0.818	14-Mar-91	568.86	1.4
17-Jul-95	795.42857	0.569	22-Jun-91	583.14	0.733	18-Apr-91	573.86	0.74
14-Aug-95	799.42857	0.904	18-Jul-91	586.86	0.764	19-May-91	578.29	0.8
7-Oct-95	807.14286	3.51	02-Aug-91	589.00	0.631	10-Jun-91	581.43	0.641
30-Nov-95	814.85714	2.39	03-Aug-91	589.14	0.793	22-Jun-91	583.14	0.696
10-Dec-95	816.28571	2.05	15-Sep-91	595.29	1.15	18-Jul-91	586.86	0.633
22-Jan-96	822.42857	1.34	25-Sep-91	596.71	0.7	02-Aug-91	589.00	0.616
19-Feb-96	826.42857	6.3	26-Nov-91	605.57	1.47	03-Aug-91	589.14	0.625
17-Mar-96	830.28571	1.45	23-Dec-91	609.43	0.98	15-Sep-91	595.29	0.688
11-Apr-96	833.85714	2.39	05-Jan-92	611.29	1.03	25-Sep-91	596.71	0.712
31-May-96	841	2.77	18-Feb-92	617.57	1.54	26-Oct-91	601.14	0.676
08-Jun-96	842.14286	1.25	28-May-92	631.86	0.654	09-Nov-91	603.14	1.06
17-Jul-96	847.71429	0.201	18-Jun-92	634.86	0.857	23-Dec-91	609.43	1.05
13-Aug-96	851.57143	0.552	18-Jul-92	639.14	0.669	04-Jan-92	611.14	0.95
19-Sep-96	856.85714	0.641	04-Aug-92	641.57	0.543	18-Feb-92	617.57	1.22
16-Dec-96	869.42857	0.243	18-Sep-92	648.00		06-Mar-92	620.00	1.56
03-Jan-97	872	3.15	08-Dec-92	659.57	1.81	07-Apr-92	624.57	1.336
28-Feb-97	880	4.4	02-Jan-93	663.14	2.62	28-May-92	631.86	0.634
08-Mar-97	881.14286	2.67	01-Feb-93	667.43	3.15	18-Jun-92	634.86	0.697
07-May-97	889.71429	1.62	20-Mar-93	674.14	4.15	18-Jul-92	639.14	0.601
06-Jun-97	894	0.788	09-Apr-93	677.00	0.905	04-Aug-92	641.57	0.498
09-Jul-97	898.71429	0.778	30-May-93	684.29	1.1	18-Sep-92	648.00	0.581
11-Aug-97	903.42857	0.788	05-Jun-93	685.14	0.982	28-Oct-92	653.71	1.16
04-Sep-97	906.85714	0.39	27-Jul-93	692.57	0.714	25-Nov-92	657.71	1.48
03-Oct-97	911	7.45	19-Aug-93	695.86	0.628	08-Dec-92	659.57	1.41
18-Nov-97	917.57143	3	25-Sep-93	701.14	0.829	02-Jan-93	663.14	1.91
13-Dec-97	921.14286		18-Nov-93	708.86	0.985	01-Feb-93	667.43	2.46
12-Jan-98	925.43	3.06	07-Dec-93	711.57	1.01	20-Mar-93	674.14	3.25
23-Mar-98	935.43	0.961	22-Jan-94	718.14	1.179	09-Apr-93	677.00	1.87
5-Apr-98	937.29	0.409	13-Feb-94	721.29	1.11	17-May-93	682.43	1.15
14-May-98	942.86	1.53	13-Mar-94	725.29	1.31	05-Jun-93	685.14	1.09
11-Jun-98	946.86	1.47	07-Apr-94	728.86	0.883	27-Jul-93	692.57	0.696
10-Jul-98	951.00	0.674	28-Jun-94	740.57	0.62	18-Aug-93	695.71	0.504
6-Aug-98	954.86	0.55	15-Jul-94	743.00	0.601	25-Sep-93	701.14	0.728
8-Sep-98	959.57	0.504	12-Aug-94	747.00	0.442	31-Oct-93	706.29	0.759
			23-Sep-94	753.00	0.511	18-Nov-93	708.86	0.889

Table 5: Raw Data for Figure 2 (continuation)

W9			W14			W15		
Date_W3	Weeks	U-tot	Date_W4	Weeks	U-tot	Date_W5	Weeks	U-tot
			23-Oct-94	757.29	0.619	07-Dec-93	711.57	0.897
			07-Dec-94	763.71	0.817	03-Jan-94	715.43	0.951
			17-Jan-95	769.57	1.08	13-Feb-94	721.29	1.06
			25-Feb-95	775.14	0.78	13-Mar-94	725.29	1.08
			13-Mar-95	777.43	1.14	07-Apr-94	728.86	1.21
			09-Apr-95	781.29	0.974	09-May-94	733.43	0.533
			17-Jun-95	791.14	0.651	06-Jun-94	737.43	0.595
			17-Jul-95	795.43	0.594	28-Jun-94	740.57	0.556
			14-Aug-95	799.43	0.431	15-Jul-94	743.00	0.735
			07-Oct-95	807.14	0.941	12-Aug-94	747.00	0.567
			30-Nov-95	814.86	1.44	23-Sep-94	753.00	0.493
			07-Dec-95	815.86	1.71	23-Oct-94	757.29	0.48
			21-Jan-96	822.29	1.94	21-Nov-94	761.43	0.587
			19-Feb-96	826.43	2.39	07-Dec-94	763.71	
			17-Mar-96	830.29	4.4	17-Jan-95	769.57	0.824
			11-Apr-96	833.86	3.45	25-Feb-95	775.14	1
			31-May-96	841.00	1.31	13-Mar-95	777.43	1.18
			08-Jun-96	842.14	1.12	09-Apr-95	781.29	1
			17-Jul-96	847.71	0.714	04-May-95	784.86	1.14
			02-Aug-96	850.00	0.613	17-Jun-95	791.14	0.611
			19-Sep-96	856.86	0.567	17-Jul-95	795.43	0.511
			16-Dec-96	869.43	1.17	03-Aug-95	797.86	0.426
			30-Jan-97	875.86	1.59	15-Sep-95	804.00	0.419
			22-Feb-97	879.14	2.26	07-Oct-95	807.14	0.528
			08-Mar-97	881.14	2.58	06-Nov-95	811.43	0.814
			10-Apr-97	885.86	1.81	07-Dec-95	815.86	1.18
			07-May-97	889.71	0.506	21-Jan-96	822.29	1.46
			06-Jun-97	894.00	0.827	19-Feb-96	826.43	1.65
			09-Jul-97	898.71	0.718	17-Mar-96	830.29	2.01
			11-Aug-97	903.43	0.816	11-Apr-96	833.86	2.61
			04-Sep-97	906.86	0.338	11-May-96	838.14	0.53
			02-Oct-97	910.86	0.8	08-Jun-96	842.14	1.02
			08-Nov-97	916.14	3.73	17-Jul-96	847.71	0.674
			13-Dec-97	921.14		2-Aug-96	850.00	0.527
			12-Jan-98	925.43	1.9	19-Sep-96	856.86	0.42
			23-Mar-98	935.43	3.05	25-Oct-96	862.00	0.786
			5-Apr-98	937.29	2.18	11-Nov-96	864.43	0.727
			14-May-98	942.86	1.58	16-Dec-96	869.43	1.05
			11-Jun-98	946.86	1.52	30-Jan-97	875.86	1.49
			10-Jul-98	951.00	0.995	21-Feb-97	879.00	1.66
			6-Aug-98	954.86	0.679	8-Mar-97	881.14	1.84
			8-Sep-98	959.57	0.719	10-Apr-97	885.86	2.09

Table 5: Raw Data for Figure 2 (continuation)

W9			W14			W15		
Date_W3	Weeks	U-tot	Date_W4	Weeks	U-tot	Date_W5	Weeks	U-tot
						7-May-97	889.71	0.582
						6-Jun-97	894.00	0.708
						9-Jul-97	898.71	0.684
						7-Aug-97	902.86	0.348
						4-Sep-97	906.86	0.388
						2-Oct-97	910.86	0.633
						18-Nov-97	917.57	2.76
						14-Dec-97	921.29	2.695
						12-Jan-98	925.43	2.56
						26-Feb-98	931.86	2.42
						23-Mar-98	935.43	2.75
						5-Apr-98	937.29	2.66
						14-May-98	942.86	1.33
						11-Jun-98	946.86	1.5
						10-Jul-98	951.00	0.957
						6-Aug-98	954.86	0.732
						8-Sep-98	959.57	

Table 5: Raw Data for Figure 2 (continuation)

W20			W25		
Date_20	Weeks	U-tot	Date_W25	Weeks	U-tot
01-Feb-88	406.43	0.51	23-Mar-80	0.00	0.2
23-Apr-88	418.14	0.289	03-Apr-80	1.57	
16-Jun-88	425.86	0.135	18-Apr-80	3.71	0.429
01-Aug-88	432.43	0.179	31-May-80	9.86	
30-Aug-88	436.57	0.135	29-Jun-80	14.00	0.2
05-Jun-89	476.43	0.444	19-Aug-80	21.29	0.095
10-Jul-89	481.43	0.367	05-Oct-80	28.00	0.15
03-Aug-89	484.86	0.33	16-Nov-80	34.00	0.16
28-Aug-89	488.43	0.474	15-Dec-80	38.14	0.8
21-Sep-89	491.86	0.45	09-Jan-81	41.71	0.259
04-Nov-89	498.14	0.764	22-Feb-81	48.00	1.47
23-Dec-89	505.14	1.47	19-Mar-81	51.57	0.244
15-Jan-90	508.43		17-Apr-81	55.71	0.305
10-Feb-90	512.14		11-May-81	59.14	0.0789
11-Mar-90	516.29		13-Jun-81	63.86	0.122
10-Apr-90	520.57	2.2	12-Jul-81	68.00	0.099
26-May-90	527.14	0.296	23-Aug-81	74.00	0.072
05-Jun-90	528.57	0.533	30-Oct-81	83.71	0.106
12-Jun-90	529.57	0.133	23-Jan-82	95.86	0.124
14-Jul-90	534.14	0.469	03-Apr-82	105.86	0.13
25-Aug-90	540.14	0.121	25-Jul-82	122.00	0.076
09-Sep-90	542.29	0.184	13-Oct-82	133.43	0.068
25-Oct-90	548.86	0.331	20-Jan-83	147.57	0.13
11-Dec-90	555.57	0.422	20-Apr-83	160.43	0.2
20-Jan-91	561.29	0.758	06-Jul-83	171.43	0.12
05-Feb-91	563.57	1.26	16-Oct-83	186.00	0.11
18-Apr-91	573.86	1.64	05-Jan-84	197.57	0.275
19-May-91	578.29	0.406	05-Feb-84	202.00	0.415
10-Jun-91	581.43	0.331	22-Mar-84	208.57	0.43
22-Jun-91	583.14	0.146	20-Apr-84	212.71	0.28
18-Jul-91	586.86	0.267	29-May-84	218.29	0.092
02-Aug-91	589.00	0.279	20-Jun-84	221.43	0.12
03-Aug-91	589.14	0.319	20-Jul-84	225.71	0.14
23-Sep-91	596.43	0.246	20-Aug-84	230.14	0.27
26-Oct-91	601.14	0.344	16-Sep-84	234.00	0.185
09-Nov-91	603.14	0.543	23-Oct-84	239.29	0.26
23-Dec-91	609.43	0.53	21-Nov-84	243.43	
05-Jan-92	611.29	0.448	13-Dec-84	246.57	0.14
18-Feb-92	617.57	0.549	21-Jan-85	252.14	0.215
06-Mar-92	620.00	0.561	14-Feb-85	255.57	0.295
07-Apr-92	624.57	0.84	16-Mar-85	259.86	0.33
28-May-92	631.86	0.272	06-Apr-85	262.86	0.42

Table 5: Raw Data for Figure 2 (continuation)

W20			W25		
Date_20	Weeks	U-tot	Date_W25	Weeks	U-tot
17-Jun-92	634.71		18-May-85	268.86	0.14
18-Jun-92	634.86	0.243	21-Jun-85	273.71	0.115
18-Jul-92	639.14	0.201	03-Jul-85	275.43	0.11
04-Aug-92	641.57	0.253	05-Aug-85	280.14	0.125
20-Sep-92	648.29		25-Sep-85	287.43	0.086
25-Nov-92	657.71	0.868	23-Oct-85	291.43	0.081
8-Dec-92	659.57	0.886	04-Jan-86	301.86	0.16
2-Jan-93	663.14	1.64	10-Apr-86	315.57	0.3
1-Feb-93	667.43	2.34	02-Jul-86	327.43	0.08
20-Mar-93	674.14		12-Oct-86	342.00	0.094
9-Apr-93	677.00	0.966	18-Jan-87	356.00	0.17
30-May-93	684.29	0.862	16-Apr-87	368.57	0.26
5-Jun-93	685.14	0.664	20-Jun-87	377.86	0.0865
27-Jul-93	692.57	0.425	12-Sep-87	389.86	0.098
18-Aug-93	695.71	0.353	07-Jan-88	406.57	0.26
25-Sep-93	701.14	0.424	25-Feb-88	413.57	0.3
18-Nov-93	708.86	0.814	17-Apr-88	421.00	0.295
7-Dec-93	711.57	0.773	16-Jun-88	429.57	0.094
22-Jan-94	718.14	0.937	01-Aug-88	436.14	0.143
13-Feb-94	721.29	1.02	28-Aug-88	440.00	0.06
13-Mar-94	725.29	0.358	25-Jan-89	461.43	0.279
9-Apr-94	729.14	1.05	01-Mar-89	466.43	0.337
31-May-94	736.57	0.36	04-Jun-89	480.00	0.174
28-Jun-94	740.57	0.183	06-Jun-89	480.29	
15-Jul-94	743.00	0.179	10-Jul-89	485.14	0.114
12-Aug-94	747.00	0.212	02-Aug-89	488.43	0.102
23-Sep-94	753.00	0.188	28-Aug-89	492.14	0.104
23-Oct-94	757.29	0.188	20-Sep-89	495.43	0.115
21-Nov-94	761.43	0.408	15-Jan-90	512.14	0.82
7-Dec-94	763.71	0.374	10-Feb-90	515.86	1
17-Jan-95	769.57	0.674	03-Mar-90	518.86	1.08
25-Feb-95	775.14	0.98	09-Apr-90	524.14	1.63
17-Jun-95	791.14	0.211	06-May-90	528.00	0.389
17-Jul-95	795.43	0.19	05-Jun-90	532.29	0.161
14-Aug-95	799.43	0.096	12-Jun-90	533.29	0.115
7-Oct-95	807.14	0.164	14-Jul-90	537.86	0.138
30-Nov-95	814.86	0.488	30-Aug-90	544.57	0.149
10-Dec-95	816.29	0.57	15-Sep-90	546.86	0.159
22-Jan-96	822.43	1.12	27-Oct-90	552.86	0.167
17-Mar-96	830.29	1.19	11-Nov-90	555.00	0.196
11-Apr-96	833.86	0.296	11-Dec-90	559.29	0.29
31-May-96	841.00	0.256	20-Jan-91	565.00	0.505

Table 5: Raw Data for Figure 2 (continuation)

W20			W25		
Date_20	Weeks	U-tot	Date_W25	Weeks	U-tot
8-Jun-96	842.14	0.211	14-Mar-91	572.57	1.245
17-Jul-96	847.71	0.654	10-Jun-91	585.14	0.141
13-Aug-96	851.57	0.222	30-Jun-91	588.00	0.138
19-Sep-96	856.86	0.163	02-Aug-91	592.71	0.097
16-Dec-96	869.43	0.975	25-Sep-91	600.43	0.173
30-Jan-97	875.86	1.1	26-Oct-91	604.86	0.185
22-Feb-97	879.14	1.28	04-Jan-92	614.86	0.407
8-Mar-97	881.14	1.5	06-Mar-92	623.71	0.498
10-Apr-97	885.86	0.929	18-Jun-92	638.57	0.097
7-May-97	889.71	0.296	04-Aug-92	645.29	0.078
6-Jun-97	894.00	0.218	11-Jan-93	668.14	0.553
9-Jul-97	898.71	0.25	20-Mar-93	677.86	2.21
7-Aug-97	902.86	0.219	30-May-93	688.00	0.266
4-Sep-97	906.86	0.172	20-Jun-93	691.00	0.15
2-Oct-97	910.86	0.223	18-Aug-93	699.43	0.119
18-Nov-97	917.57	1.22	22-Jan-94	721.86	0.667
14-Dec-97	921.29		14-Mar-94	729.14	0.813
12-Jan-98	925.43	1.11	27-Jun-94	744.14	0.135
26-Feb-98	931.86	1.41	07-Aug-94	750.00	0.092
23-Mar-98	935.43	1.51	22-Jan-95	774.00	0.45
5-Apr-98	937.29	1.73	13-Mar-95	781.14	0.623
14-May-98	942.86	0.332	22-Jun-95	795.57	0.082
11-Jun-98	946.86	0.246	26-Aug-95	804.86	0.071
10-Jul-98	951.00	0.237	10-Dec-95	820.00	0.207
6-Aug-98	954.86	0.288	22-Jan-96	826.14	0.573
8-Sep-98	959.57	0.263	19-Feb-96	830.14	0.561
			17-Mar-96	834.00	0.637
			11-Apr-96	837.57	0.171
			24-May-96	843.71	0.341
			23-Jun-96	848.00	0.116
			20-Jul-96	851.86	0.1
			18-Aug-96	856.00	0.13
			29-Sep-96	862.00	0.118
			17-Oct-96	864.57	0.121
			15-Dec-96	873.00	0.235
			23-Jan-97	878.57	0.477
			21-Feb-97	882.71	0.607
			8-Mar-97	884.86	0.363
			10-Apr-97	889.57	0.6
			7-May-97	893.43	0.349
			6-Jun-97	897.71	0.176
			26-Jun-97	900.57	0.124

Table 5: Raw Data for Figure 2 (continuation)					
W20			W25		
Date_20	Weeks	U-tot	Date_W25	Weeks	U-tot
			28-Jul-97	905.14	0.101
			7-Aug-97	906.57	0.133
			4-Sep-97	910.57	0.98
			2-Oct-97	914.57	0.086
			18-Nov-97	921.29	0.222
			9-Dec-97	924.29	0.399
			12-Jan-98	929.14	0.316
			9-Feb-98	933.14	0.692
			23-Mar-98	939.14	0.882
			5-Apr-98	941.00	0.788
			14-May-98	946.57	0.204
			11-Jun-98	950.57	0.172
			11-Jul-98	954.86	0.077
			6-Aug-98	958.57	0.1
			8-Sep-98	963.29	0.114

Table 6: Raw Data of Figure 3a - 3b and Figure 4a -4b

W14					W15				
Date_W14	Temp. (C)	pH	Ra226-Tot	U-tot	Date_W15	Temp. (C)	pH	Ra226-Tot	U-tot
17-Nov-86	2	7.2	0.465	0.86	18-Jan-87	2	7.2	0.424	0.75
13-Dec-86	1	6.6	0.618	0.96	19-Feb-87		6.4	0.678	0.795
18-Jan-87	2	6.9	0.474	0.59	04-Mar-87		6.3	0.497	0.72
19-Feb-87		6.3	0.311	0.47	19-Apr-87		6.4	0.215	0.62
4-Mar-87		6.4	0.246	0.71	07-May-87	1	7.2	0.177	0.55
19-Apr-87		6.7	0.333	0.77	19-Jun-87	14	7.9	0.217	0.74
7-May-87	1	8.1	0.245	0.8	25-Jun-87			0.221	0.54
19-Jun-87	14	8.6	0.277	0.61	18-Jul-87	4	7.3	0.318	0.36
18-Jul-87	4	7.4	0.413	0.4	10-Aug-87	5	8.2	0.349	0.395
10-Aug-87	5	8.2	0.346	0.355	12-Sep-87	1	7.2	0.338	0.42
12-Sep-87	1	7.5	0.415	0.47	11-Oct-87		8	0.2	0.39
20-Nov-87	0.5	7.1	0.220	0.68	20-Nov-87	0.5	7.9	0.25	0.56
5-Dec-87	0.5	6.8	0.210	0.72	05-Dec-87	0.5	7	0.27	0.54
7-Jan-88	2	6.8	0.130	1.2	01-Feb-88	0.5		0.29	0.57
11-Feb-88	0.5		0.290	0.72	16-Jun-88	8		0.25	0.276
14-Mar-88	1	6.7	0.35	0.73	13-Aug-88	9.5		0.4	0.362
16-Jun-88	8	8.4	0.3	0.43	30-Aug-88			0.3	0.39
2-Jul-88	10	8.8	0.25	0.46	07-Sep-88	8	7.1	0.3	0.45
13-Aug-88	9.5	7.2	0.4	0.362	08-Oct-88	1	7.6	0.3	0.5
13-Sep-88	8	7.3	0.3	0.43	20-Nov-88		7.6	0.25	0.784
8-Oct-88	1	7.8	0.45	0.642	28-Dec-88	1	7.1	0.2	0.664
28-Dec-88	1	7.6	0.14	0.986	25-Jan-89	0	6.7	0.25	0.937
25-Jan-89	0	6.1	0.16	0.423	09-Feb-89	1.5	5.8	0.3	0.539
9-Feb-89	1.5	5.9	0.19	0.427	01-Mar-89	1	6.3	0.2	0.64
1-Mar-89	1	6.7	0.3	0.62	08-Apr-89	1	7.1	0.3	0.603
8-Apr-89	1	7	0.25	0.677	09-May-89		6.3	0.3	0.539
4-Jun-89	6	7.5	0.45	0.86	04-Jun-89	6	7.1	0.35	0.682
12-Jul-89	7.1				12-Jul-89	7.1			
19-Jul-89	7.5	7	0.4	1.1	19-Jul-89	7.5	7	0.3	0.898
12-Aug-89	8.5	7.4	0.35	0.967	12-Aug-89	8.5	7.1	0.35	0.899
24-Sep-89	1.5	7	0.45	1.09	24-Sep-89	1.5	7.1	0.4	1.09
13-Oct-89	1		0.5	1.4	07-Oct-89	1	7.2	0.45	1.15
23-Dec-89	0.5	7	0.55	1.5	04-Nov-89		7.3		
15-Jan-90	1	6.6	0.85	2.18	23-Dec-89	0.5	7	0.45	1.47
10-Feb-90	1	6.4	0.7	1.31	15-Jan-90	1	6.7	0.6	1.93
3-Mar-90	1	6.3	0.7	2.05	10-Feb-90	1	6.6	0.7	1.85
9-Apr-90	1	5.9	0.85	1.83	03-Mar-90	1	6.4	0.35	2.04
26-May-90	1.1	7.2	0.35	1.18	09-Apr-90	1	6.1	0.75	2.25
5-Jun-90	9	8.7	0.3	1.29	06-May-90	1.1	6	0.3	1.5

Table 6: Raw Data of Figure 3a - 3b and Figure 4a -4b (continuation)

W14					W15				
Date_W14	Temp. (C)	pH	Ra226-Tot	U-tot	Date_W15	Temp. (C)	pH	Ra226-Tot	U-tot
14-Jul-90	3		0.45	0.5	05-Jun-90	9	8.7	0.3	1.09
25-Aug-90	0.5	7.2	0.55	0.436	14-Jul-90	3		0.35	0.469
9-Sep-90	2	7.4	0.45	0.47	25-Aug-90	0.5	7.1	0.4	0.408
11-Dec-90	0.5	6.1	0.5	0.65	09-Sep-90	2	7.4	0.4	0.49
20-Jan-91	1	6.4	0.35	1.85	25-Oct-90		7.4	0.45	0.695
5-Feb-91	2	6.5	0.3	1.48	11-Nov-90		7	0.6	0.779
14-Mar-91	6	6.4	0.14	0.648	11-Dec-90	0.5	6.1	0.55	0.84
25-Apr-91	5.5	6.1	0.25	0.629	20-Jan-91	1	6.2	0.65	1.38
19-May-91	11	6.5	0.4	0.968	05-Feb-91	2	6.2	0.6	1.47
10-Jun-91			0.45	0.818	14-Mar-91	6	6.2	0.45	1.4
22-Jun-91	6	7.3	0.45	0.733	18-Apr-91	5.5	6.5	0.3	0.74
18-Jul-91	8	7.1	0.5	0.764	19-May-91	11	6.4	0.35	0.8
2-Aug-91			0.35	0.631	10-Jun-91			0.35	0.641
3-Aug-91	3	8.7	0.5	0.793	22-Jun-91	6	7.2	0.35	0.696
15-Sep-91	1		0.7	1.15	18-Jul-91	8	7	0.3	0.633
25-Sep-91	2		0.45	0.7	02-Aug-91			0.3	0.616
26-Nov-91	1	6.7	0.13	1.47	03-Aug-91	3	8.1	0.3	0.625
23-Dec-91	2	7	0.2	0.98	15-Sep-91	1		0.45	0.688
5-Jan-92	1	6.6	0.12	1.03	25-Sep-91	2		0.4	0.712
18-Feb-92	1.5	6.3	0.5	1.54	26-Oct-91	1	6.6	0.4	0.676
28-May-92	7	6.7	0.35	0.654	09-Nov-91		6.5	0.5	1.06
18-Jun-92	9.5	9.3	0.3	0.857	23-Dec-91	2	7.2	0.45	1.05
18-Jul-92	10	7.3	0.55	0.669	04-Jan-92	1	6.2	0.3	0.95
4-Aug-92	0.5	7.4	0.5	0.543	18-Feb-92	1.5	6	0.25	1.22
18-Sep-92	3	7.2			06-Mar-92	7	6	0.35	1.56
8-Dec-92	1	7	0.18	1.81	07-Apr-92	9.5	6.4	0.25	1.336
2-Jan-93	3	6.6	0.65	2.62	28-May-92		6.8	0.4	0.634
1-Feb-93	1	7	0.65	3.15	18-Jun-92		9.1	0.25	0.697
20-Mar-93	1	6.6	0.6	4.15	18-Jul-92	10	7.2	0.3	0.601
9-Apr-93	6	7	0.18	0.905	04-Aug-92	0.5	7.3	0.35	0.498
30-May-93	8	8.5	0.3	1.1	18-Sep-92	3	7.1	0.25	0.581
5-Jun-93	8.6	8.8	0.35	0.982	28-Oct-92		7.2	0.4	1.16
27-Jul-93		8.1	0.35	0.714	25-Nov-92		7.4	0.35	1.48
19-Aug-93	3.2	7.6	0.3	0.628	08-Dec-92	1	7	0.35	1.41
25-Sep-93	2	7.7	0.25	0.829	02-Jan-93	3	6.7	0.45	1.91
18-Nov-93		6.5	0.2	0.985	01-Feb-93	1	7	0.55	2.46
7-Dec-93	0.5	7	0.3	1.01	20-Mar-93	1	6.5	0.55	3.25
22-Jan-94	1	6.3	0.35	1.179	09-Apr-93	6	6.9	0.3	1.87
13-Feb-94	3	6.5	0.45	1.11	17-May-93	8	8	0.25	1.15

Table 6: Raw Data of Figure 3a - 3b and Figure 4a -4b (continuation)

W14					W15				
Date_W14	Temp. (C)	pH	Ra226-Tot	U-tot	Date_W15	Temp. (C)	pH	Ra226-Tot	U-tot
13-Mar-94	1	6.7	0.5	1.31	05-Jun-93	8.6	8.1	0.3	1.09
7-Apr-94	6	6.5	0.2	0.883	27-Jul-93		7.7	0.25	0.696
28-Jun-94	7.5	8.9	0.25	0.62	18-Aug-93	3.2	7.2	0.25	0.504
15-Jul-94	8	9.1	0.17	0.601	25-Sep-93	2	7.1	0.2	0.728
12-Aug-94	4.5	8.1	0.25	0.442	31-Oct-93		6.7	0.2	0.759
23-Sep-94	2	7.8	0.4	0.511	18-Nov-93		6.6	0.3	0.889
23-Oct-94	1.5	7.8	0.4	0.619	07-Dec-93	0.5	7	0.3	0.897
7-Dec-94	0	7.2	0.35	0.817	03-Jan-94	1	6.6	0.3	0.951
17-Jan-95	0	6.8	0.75	1.08	13-Feb-94	3	6.5	0.3	1.06
25-Feb-95	0	6.7	0.7	0.78	13-Mar-94	1	6.4	0.4	1.08
13-Mar-95	0.5	6.7	1	1.14	07-Apr-94	6	6.6	0.5	1.21
9-Apr-95	3.5	6.6	0.75	0.974	09-May-94	7.5	6.4	0.14	0.533
17-Jun-95	9	8.3	0.35	0.651	06-Jun-94	8	9.6	0.2	0.595
17-Jul-95	8.5	7.6	0.3	0.594	28-Jun-94		7.8	0.2	0.556
14-Aug-95	4.5	7.5	0.45	0.431	15-Jul-94		9.2	0.16	0.735
7-Oct-95	0.5	8.3	0.4	0.941	12-Aug-94	4.5	7.4	0.3	0.567
30-Nov-95		7.4	0.35	1.44	23-Sep-94	2	7.6	0.3	0.493
7-Dec-95		7.6	0.35	1.71	23-Oct-94	1.5	7.8	0.3	0.48
21-Jan-96	1	6.2	0.9	1.94	21-Nov-94		7.7	0.3	0.587
19-Feb-96	1	6.4	1.1	2.39	07-Dec-94	0	7		
17-Mar-96	5.5	6.7	0.75	4.4	17-Jan-95	0	7	0.35	0.824
11-Apr-96	3.5	6.6	0.55	3.45	25-Feb-95	0	6.7	0.6	1
31-May-96	7.7	8.6	0.2	1.31	13-Mar-95	0.5	6.7	0.8	1.18
8-Jun-96		8.6	0.25	1.12	09-Apr-95	3.5	6.6	0.75	1
17-Jul-96	14		0.25	0.714	04-May-95		7	0.7	1.14
2-Aug-96		7.6	0.2	0.613	17-Jun-95	9	7.6	0.3	0.611
19-Sep-96			0.3	0.567	17-Jul-95	8.5	7.3	0.4	0.511
16-Dec-96	1		0.4	1.17	03-Aug-95	4.5	7.3	0.25	0.426
30-Jan-97	1.2	6.8	1	1.59	15-Sep-95		7.1	0.2	0.419
22-Feb-97		7.12	0.95	2.26	07-Oct-95	0.5	7.9	0.25	0.528
8-Mar-97	1	6.9	0.7	2.58	06-Nov-95		8.1	0.25	0.814
10-Apr-97	1.5	6.5	0.79	1.81	07-Dec-95		7.1	0.4	1.18
7-May-97	2	6.4	0.16	0.506	21-Jan-96	1	6.6	0.4	1.46
6-Jun-97	9	7.5	0.32	0.827	19-Feb-96	1	6.4	0.5	1.65
9-Jul-97	7.5	7.3	0.28	0.718	17-Mar-96	5.5	6.7	0.55	2.01
11-Aug-97	6		0.25	0.816	11-Apr-96	3.5	6.5	0.7	2.61
4-Sep-97	5	7	0.32	0.338	11-May-96	7.7	6.8	0.17	0.53
2-Oct-97	0	6.9	0.34	0.8	08-Jun-96		8.3	0.3	1.02
8-Nov-97	4.7		0.52	3.73	17-Jul-96	14		0.19	0.674

Table 6: Raw Data of Figure 3a - 3b and Figure 4a -4b (continuation)

W14					W15				
Date_W14	Temp. (C)	pH	Ra226-Tot	U-tot	Date_W15	Temp. (C)	pH	Ra226-Tot	U-tot
13-Dec-97	0	6.9			2-Aug-96		7.7	0.18	0.527
12-Jan-98	6.8		0.51	1.9	19-Sep-96			0.25	0.42
					25-Oct-96		7.6	0.2	0.786
23-Mar-98	6.7		0.86	3.05	11-Nov-96		7.9	0.25	0.727
5-Apr-98	6.9		0.94	2.18	16-Dec-96	1		0.25	1.05
14-May-98			0.32	1.58	30-Jan-97	1.2	7.1	0.4	1.49
11-Jun-98			0.19	1.52	21-Feb-97		7.35	0.5	1.66
10-Jul-98	7.3		0.21	0.995	8-Mar-97	1	7.1	0.5	1.84
6-Aug-98			0.15	0.679	10-Apr-97	1.5	6.6	0.63	2.09
8-Sep-98			0.2	0.719	7-May-97	2	6.4	0.2	0.582
					6-Jun-97	9	7.6	0.25	0.708
					9-Jul-97	7.5	7.2	0.24	0.684
					7-Aug-97	6	6.9	0.24	0.348
					4-Sep-97	5	7	0.29	0.388
					2-Oct-97	0	6.9	0.3	0.633
					18-Nov-97	4.7		0.4	2.76
					14-Dec-97		7.1	0.445	2.695
					12-Jan-98		6.5	0.48	2.56
					26-Feb-98		6.2	0.58	2.42
					23-Mar-98		6.9	0.61	2.75
					5-Apr-98		6.7	0.63	2.66
					14-May-98		6.9	0.31	1.33
					11-Jun-98		6.7	0.2	1.5
					10-Jul-98		6.8	0.27	0.957
					6-Aug-98		6.9	0.13	0.732
					8-Sep-98		7.1		

Fig. 1a. 226Ra-Total trends to slightly decrease at W3
over Apr. 80 to Sep. 98 (Pearson r=-0.134, P>0.05)

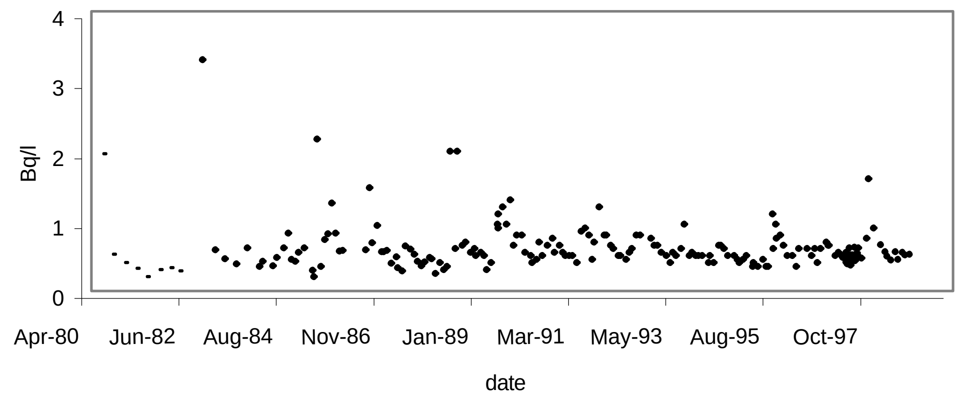


Fig. 1b. 226Ra-Total rapidly decreases at W4
over Apr. 80 to Sep. 98
(Pearson r=-0.408, P<0.001)

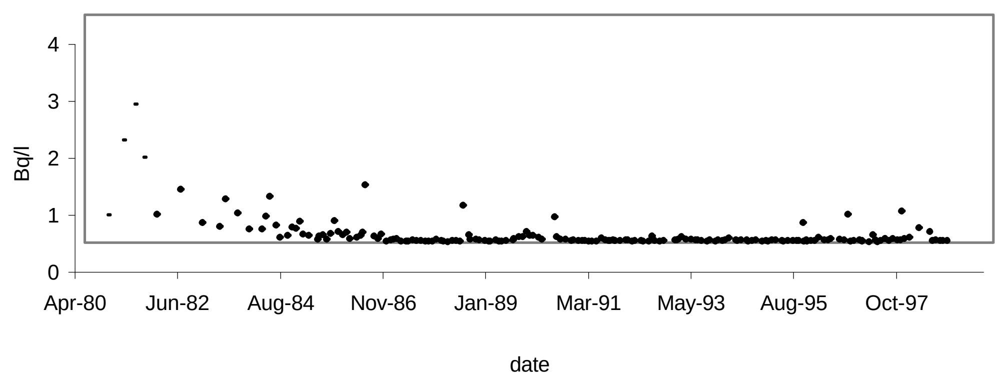
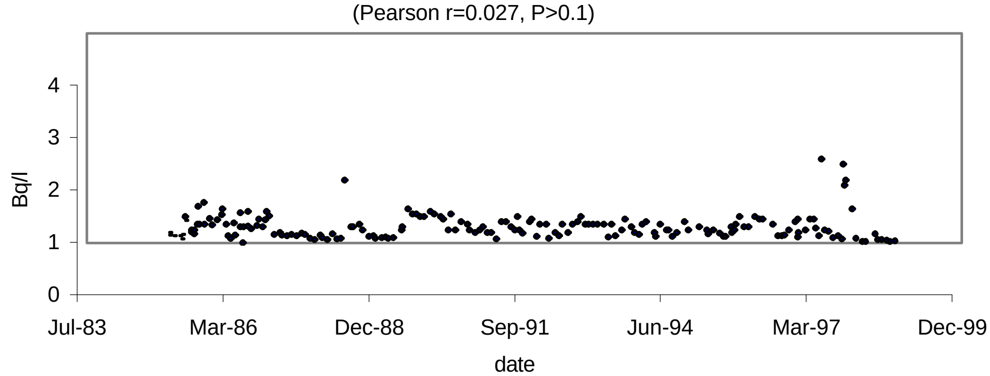


Fig. 1c. 226Ra-Total rapidly decreases at W5
over Apr. 80 to Sep. 98
(Pearson r=0.027, P>0.1)



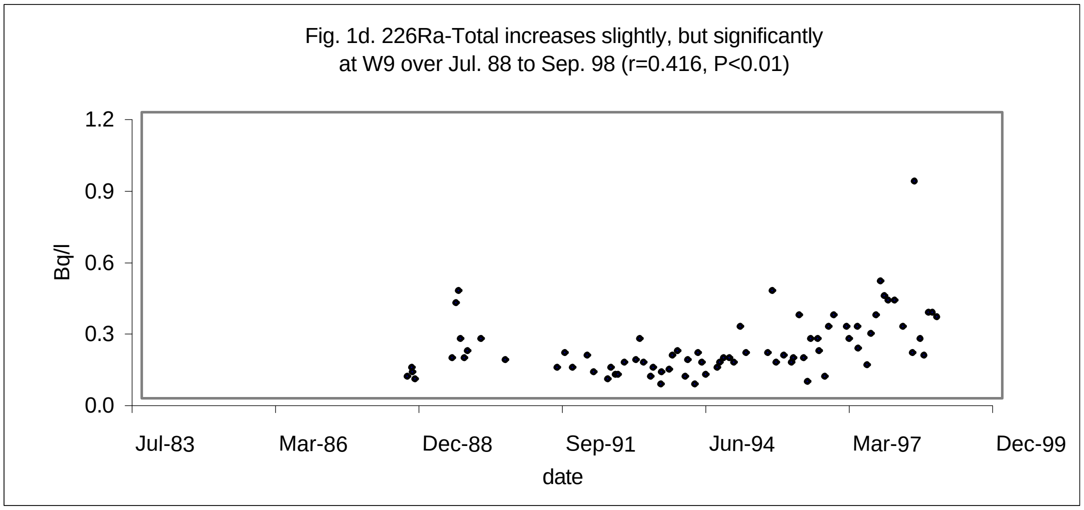


Fig. 1d. 226Ra-Total increases slightly, but significantly
at W9 over Jul. 88 to Sep. 98 (r=0.416, P<0.01)
1.2
0.9
0.6
0.3
0.0
Bq/l
Jul-83
Mar-86
Dec-88
Sep-91
Jun-94
Mar-97
Dec-99
date

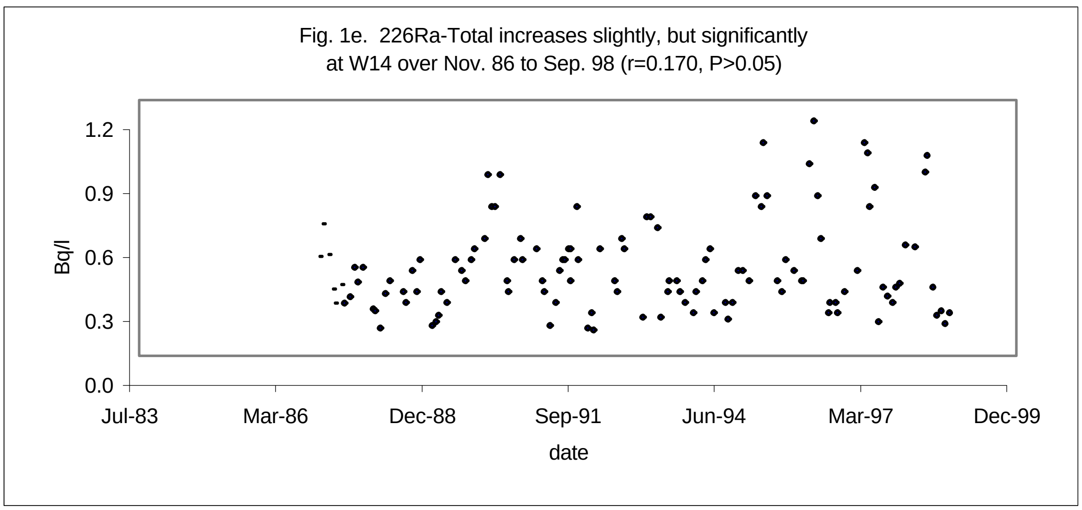


Fig. 1e. 226Ra-Total increases slightly, but significantly
at W14 over Nov. 86 to Sep. 98 (r=0.170, P>0.05)
1.2
0.9
0.6
0.3
0.0
Bq/l
Jul-83
Mar-86
Dec-88
Sep-91
Jun-94
Mar-97
Dec-99
date

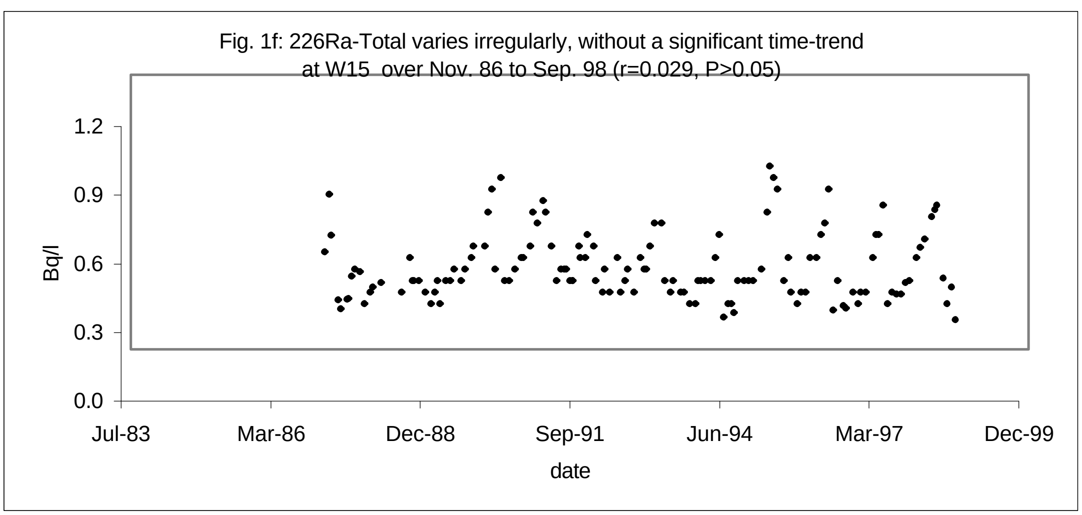


Fig. 1f: 226Ra-Total varies irregularly, without a significant time-trend
at W15 over Nov. 86 to Sep. 98 (r=0.029, P>0.05)
1.2
0.9
0.6
0.3
0.0
Bq/l
Jul-83
Mar-86
Dec-88
Sep-91
Jun-94
Mar-97
Dec-99
date

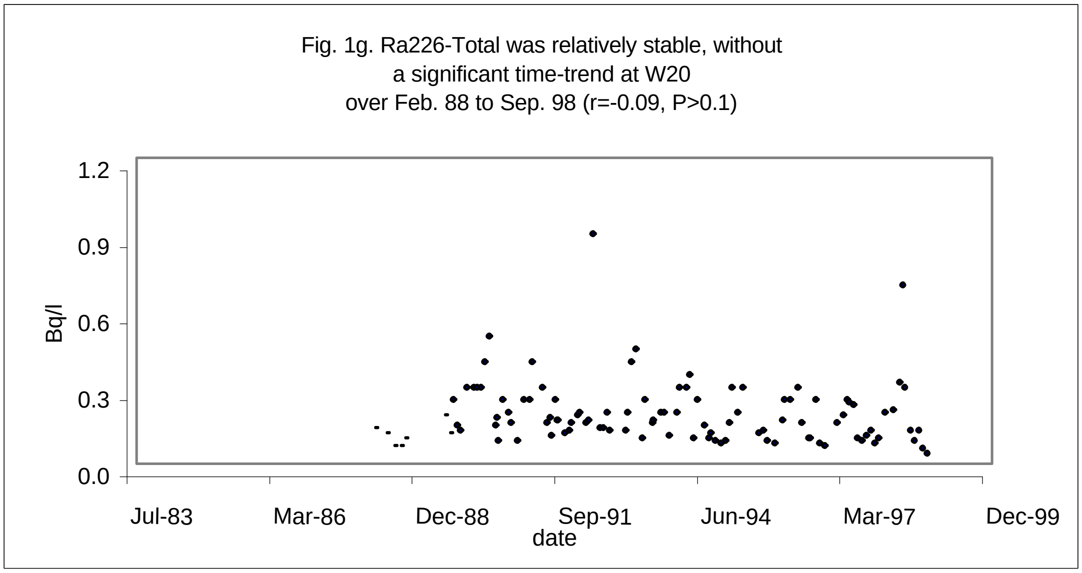


Fig. 1g. Ra226-Total was relatively stable, without
a significant time-trend at W20
over Feb. 88 to Sep. 98 (r=-0.09, P>0.1)
Bq/l
1.2
0.9
0.6
0.3
0.0
Jul-83
Mar-86
Dec-88
Sep-91
Jun-94
Mar-97
Dec-99
date

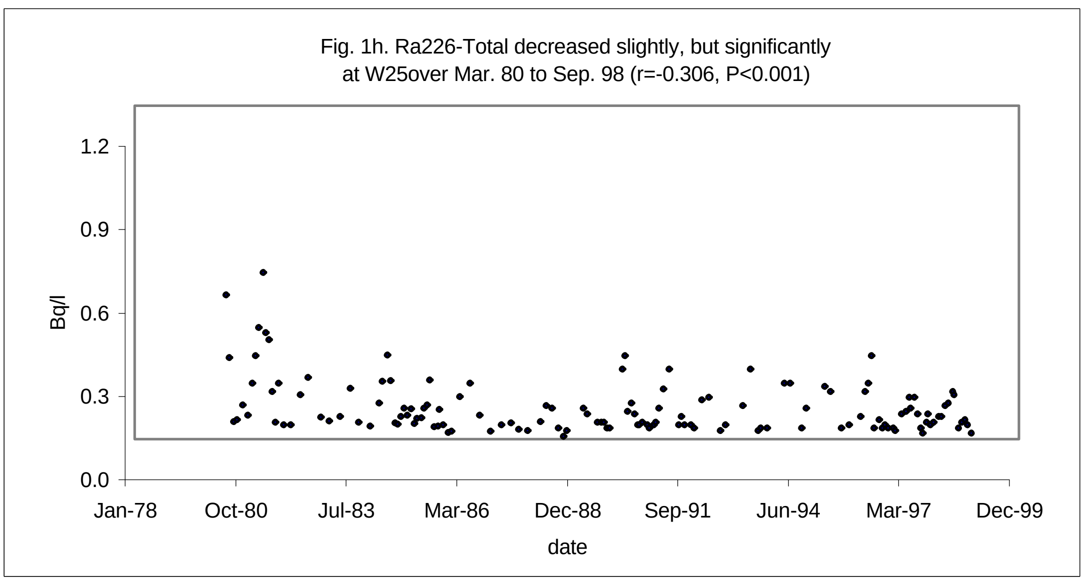


Fig. 1h. Ra226-Total decreased slightly, but significantly
at W25over Mar. 80 to Sep. 98 (r=-0.306, P<0.001)
Bq/l
1.2
0.9
0.6
0.3
0.0
Jan-78
Oct-80
Jul-83
Mar-86
Dec-88
Sep-91
Jun-94
Mar-97
Dec-99
date

Fig. 2a. U-total trended to increase slowly, but significantly
(N=115, r=0.308, P<0.01) at W3 during Apr. 80 - Sep. 98.

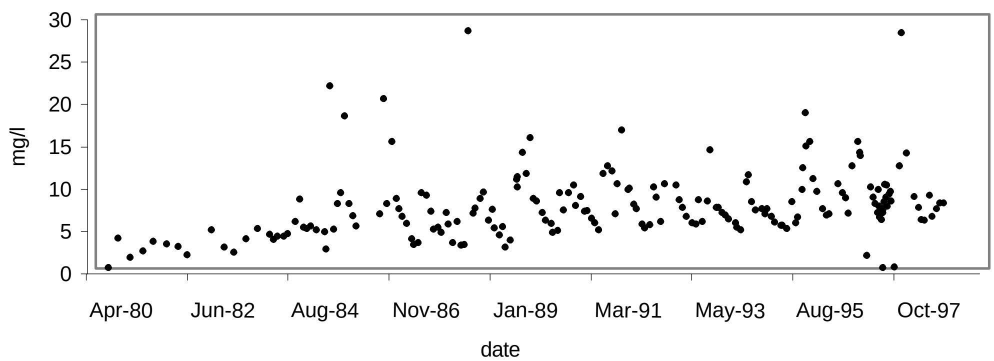


Fig. 2b. U-tot decreased significantly (r=-0.494, P<0.01)
at **W4** during Apr. 1980 - Sep. 98.

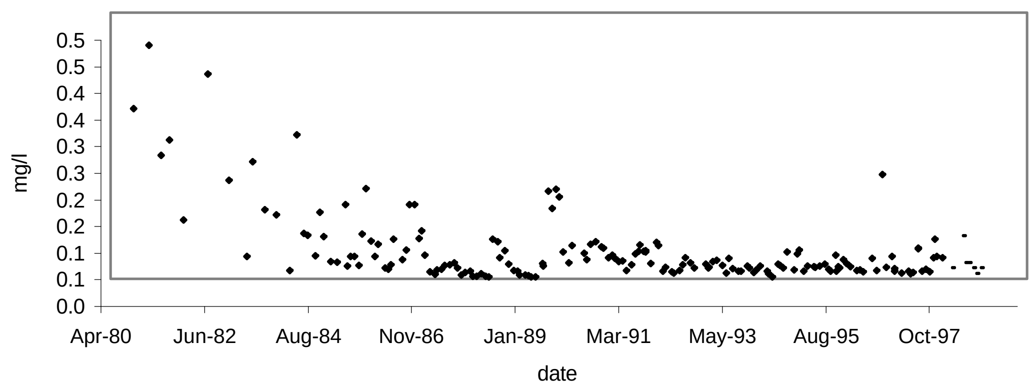
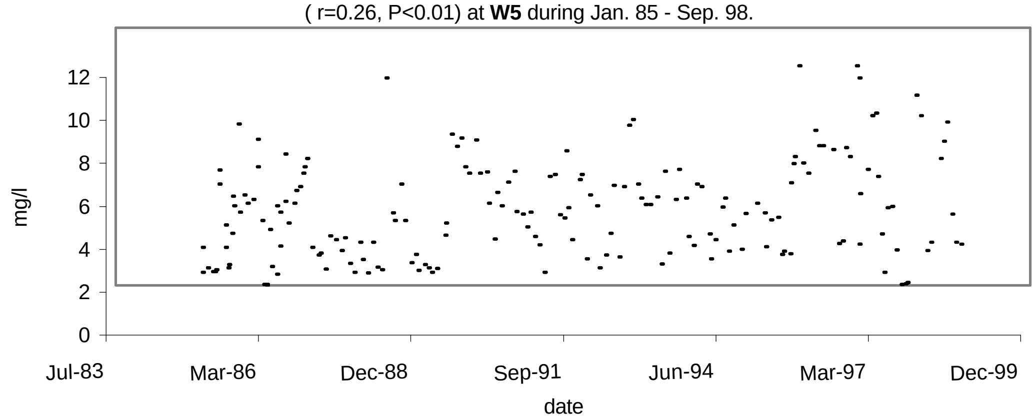


Fig. 2c. U-total trended to increase slowly, but significantly
(r=0.26, P<0.01) at **W5** during Jan. 85 - Sep. 98.



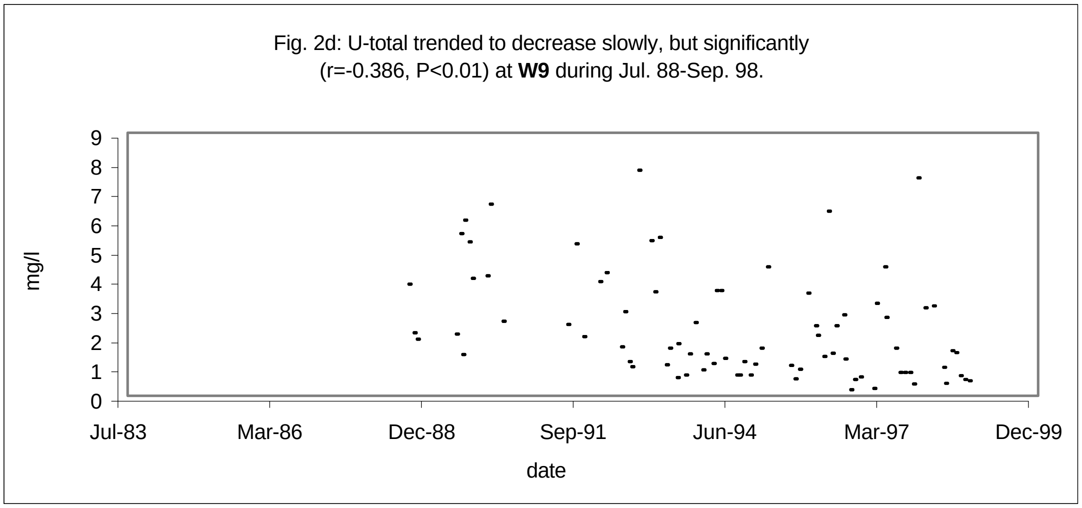


Fig. 2d: U-total trended to decrease slowly, but significantly
(r=-0.386, P<0.01) at **W9** during Jul. 88-Sep. 98.
mg/l
date
Jul-83
Mar-86
Dec-88
Sep-91
Jun-94
Mar-97
Dec-99

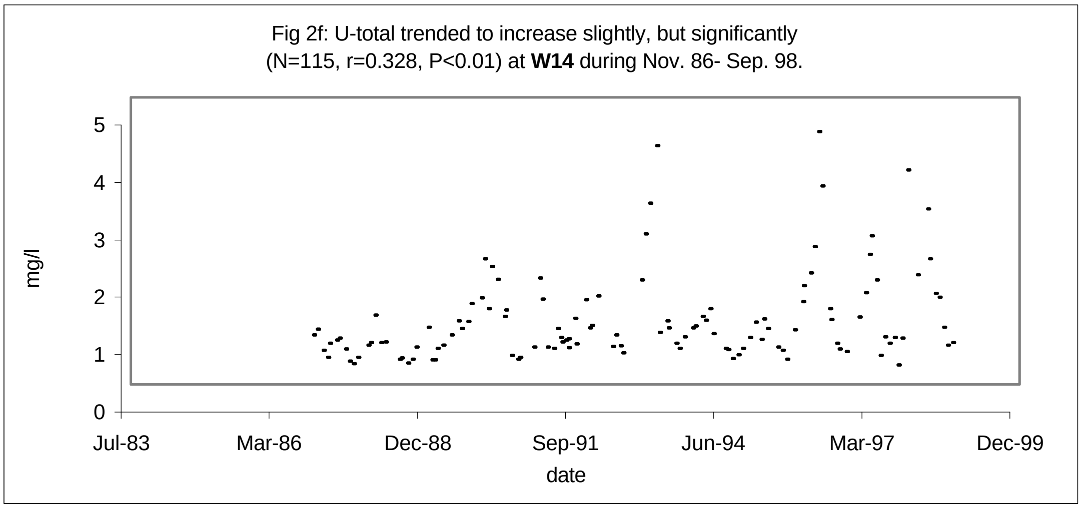


Fig 2f: U-total trended to increase slightly, but significantly
(N=115, r=0.328, P<0.01) at **W14** during Nov. 86- Sep. 98.
mg/l
date
Jul-83
Mar-86
Dec-88
Sep-91
Jun-94
Mar-97
Dec-99

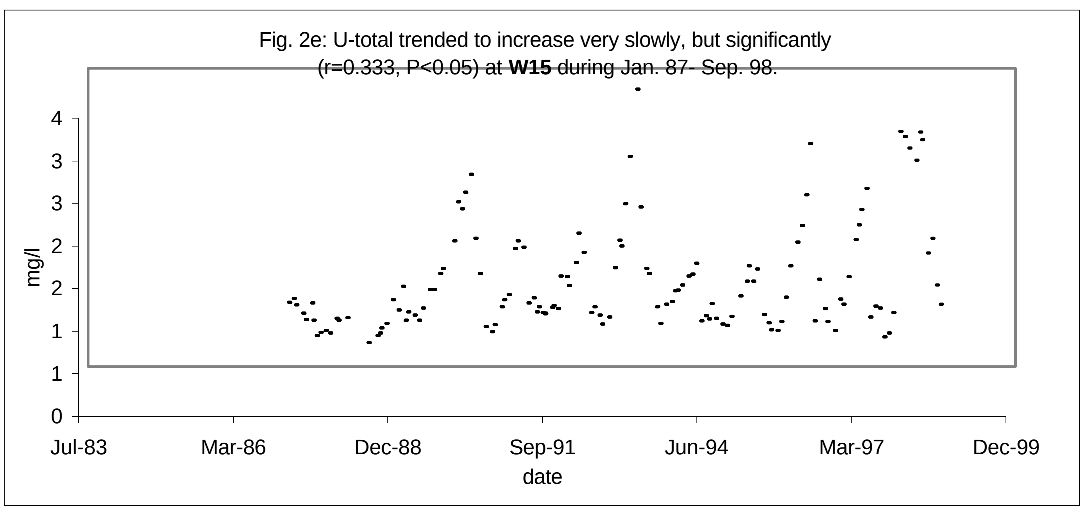


Fig. 2e: U-total trended to increase very slowly, but significantly
(r=0.333, P<0.05) at **W15** during Jan. 87- Sep. 98.
mg/l
date
Jul-83
Mar-86
Dec-88
Sep-91
Jun-94
Mar-97
Dec-99

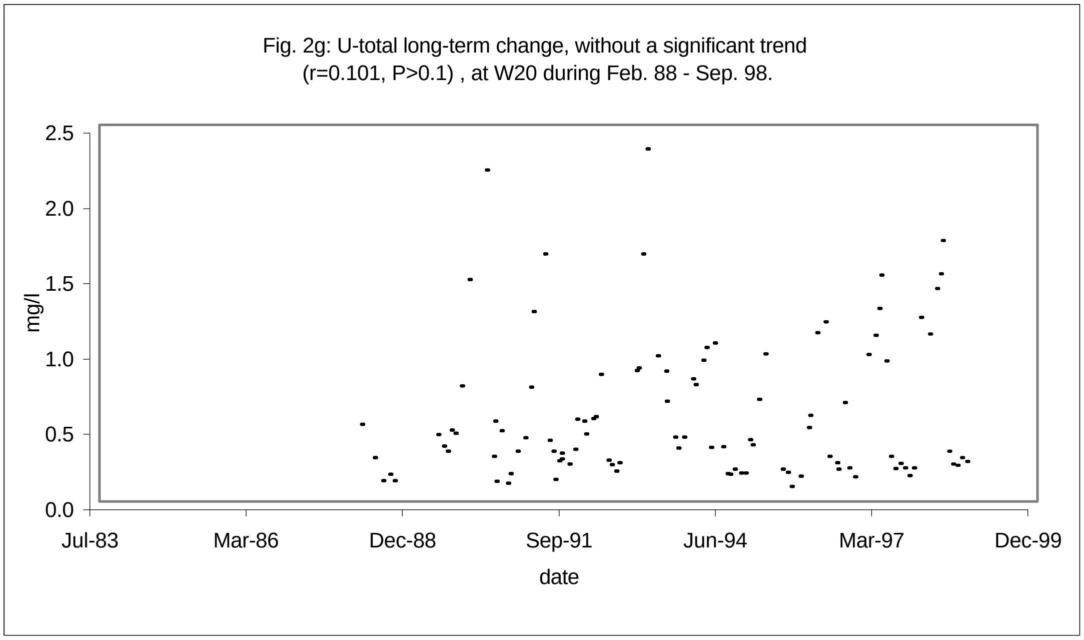


Fig. 2g: U-total long-term change, without a significant trend
(r=0.101, P>0.1) , at W20 during Feb. 88 - Sep. 98.
mg/l
2.5
2.0
1.5
1.0
0.5
0.0
Jul-83
Mar-86
Dec-88
Sep-91
Jun-94
Mar-97
Dec-99
date

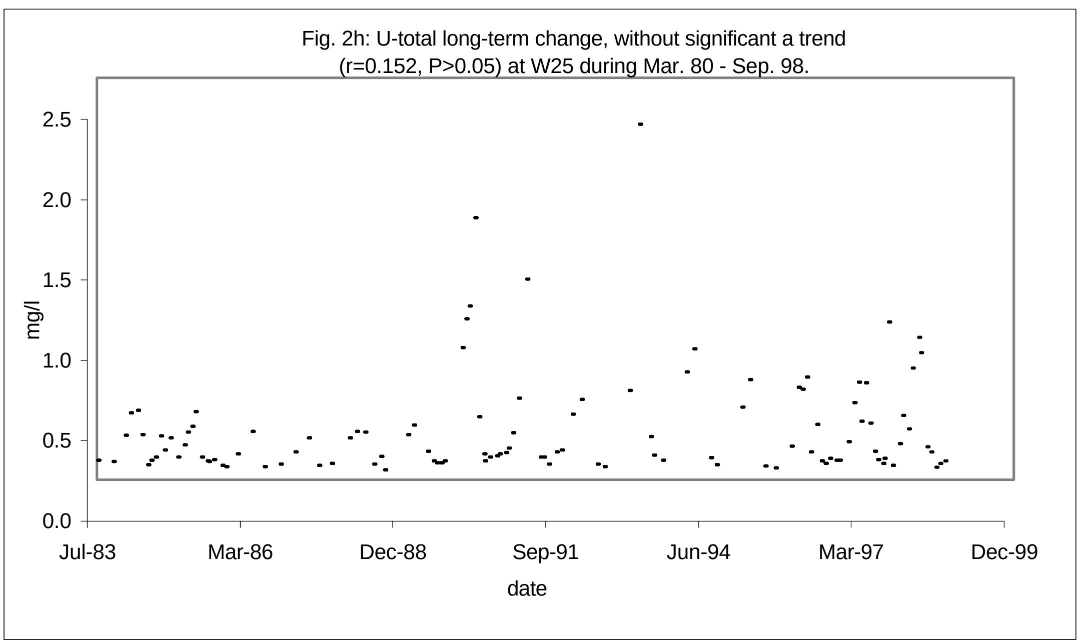


Fig. 2h: U-total long-term change, without significant a trend
(r=0.152, P>0.05) at W25 during Mar. 80 - Sep. 98.
mg/l
2.5
2.0
1.5
1.0
0.5
0.0
Jul-83
Mar-86
Dec-88
Sep-91
Jun-94
Mar-97
Dec-99
date

Figure 3a

Long-term Change in Ra226 in realtion to pH and Temperature at **W14**, showing a negative correlation.

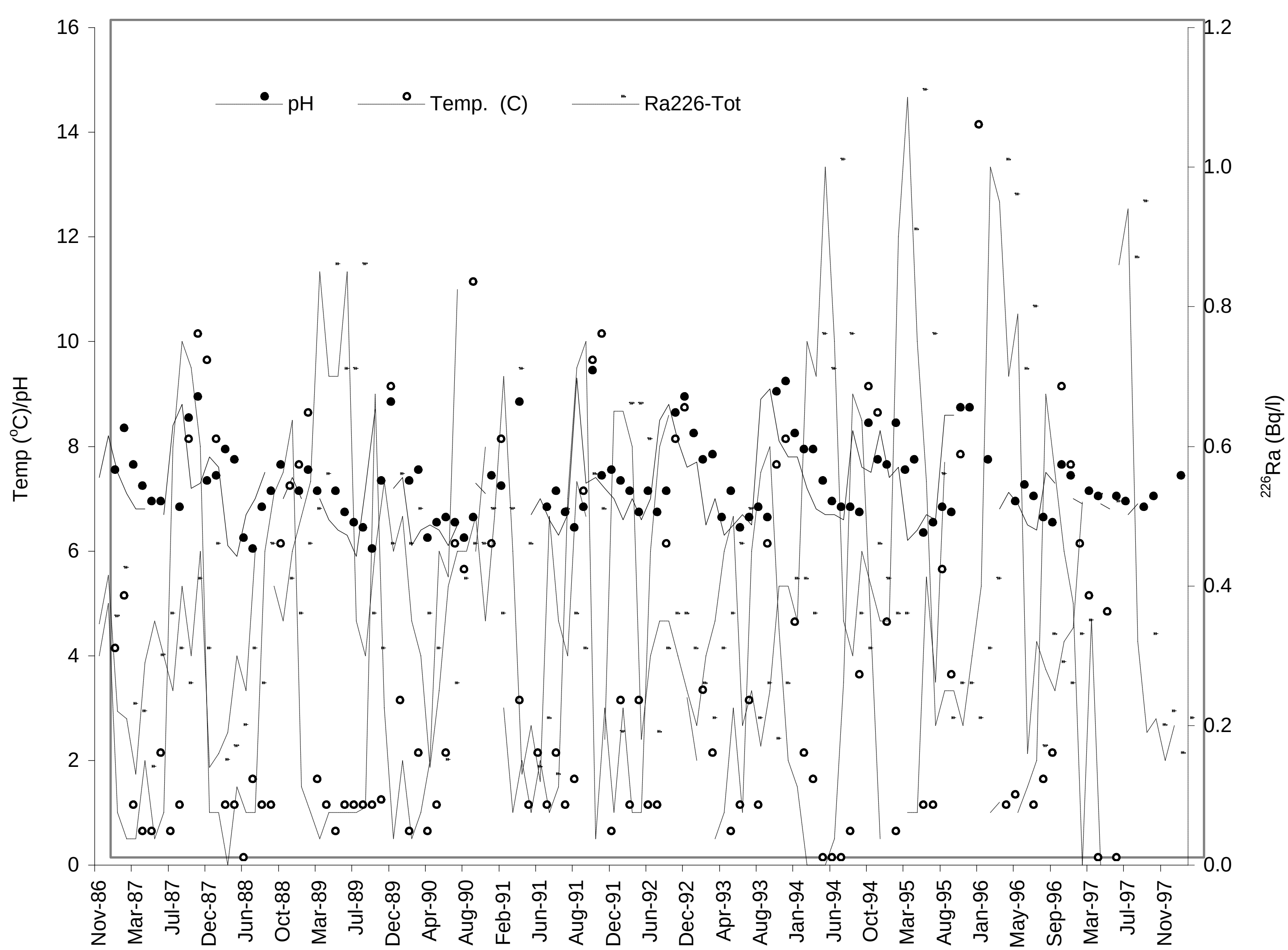


Figure 3b

Long-term Change in ^{226}Ra in relation to temperature and pH at **W15**, showing a negative correlation.

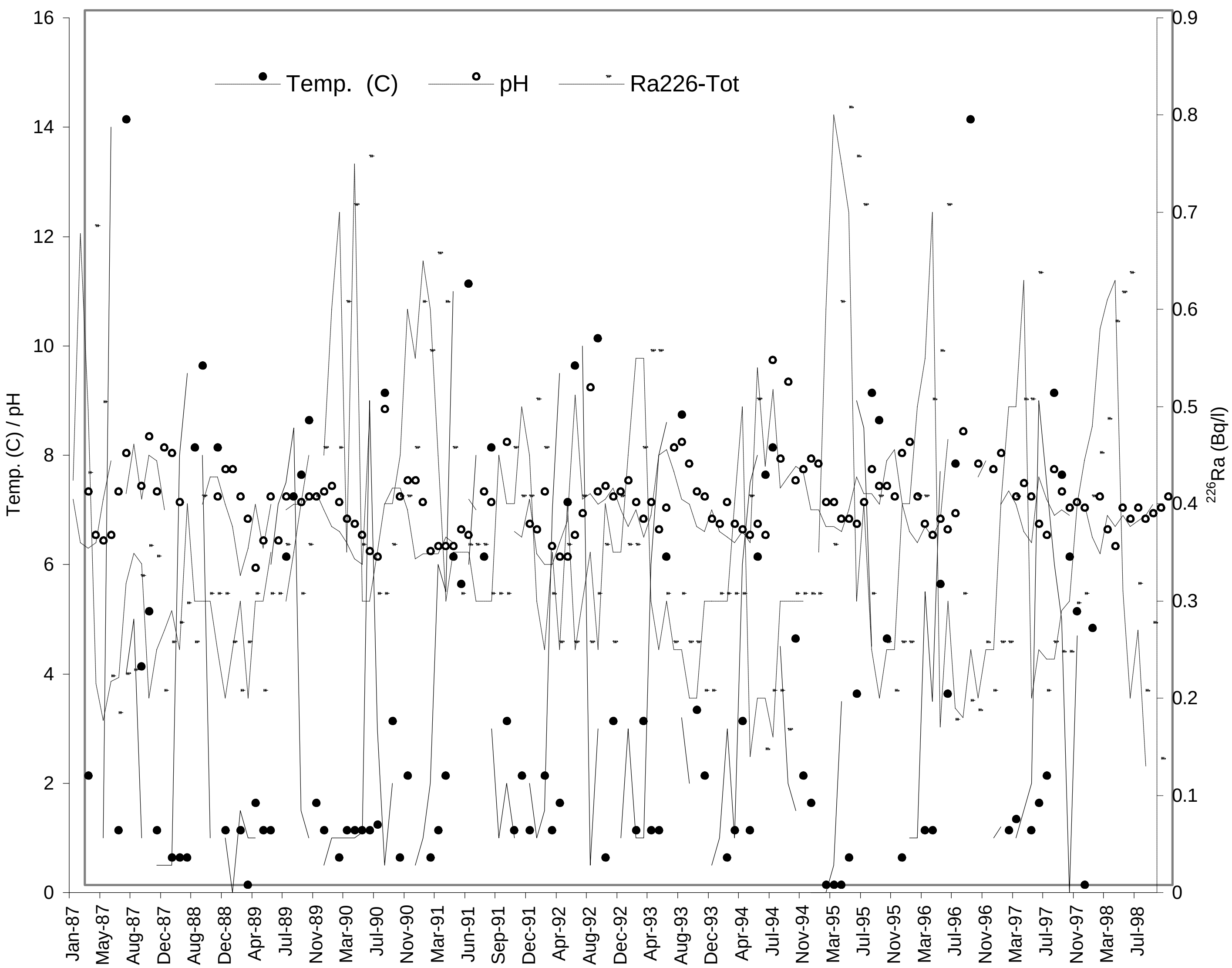


Figure 4a

Long-term Change in Uranium in relation to pH and Temperature at **W14**, showing a negative correlation

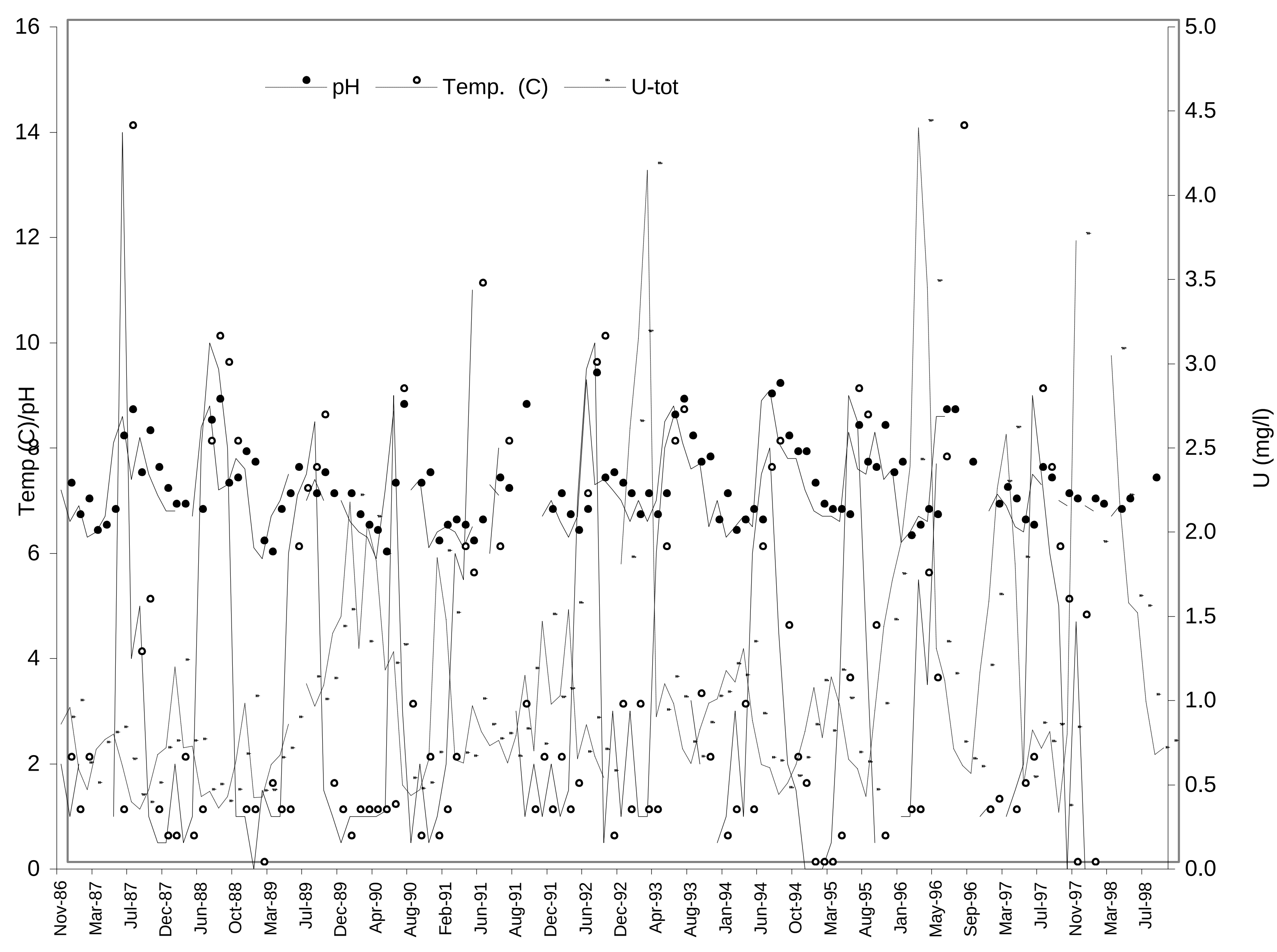


Figure 4b

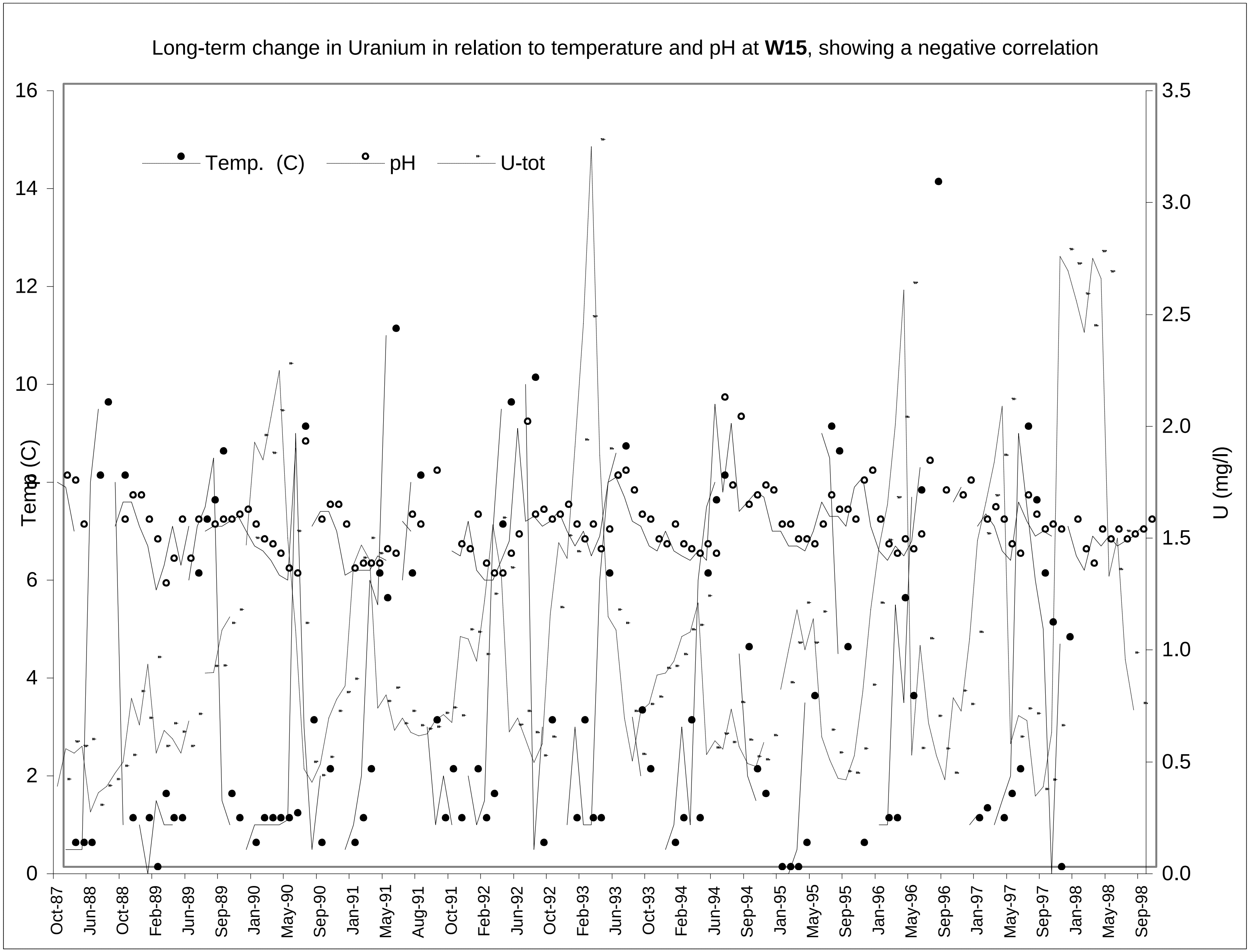

Long-term change in Uranium in relation to temperature and pH at **W15**, showing a negative correlation
Temp. (C)
pH
U-tot
Temp (C)
U (mg/l)
0
2
4
6
8
10
12
14
16
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
Oct-87
Jun-88
Oct-88
Feb-89
Jun-89
Sep-89
Jan-90
May-90
Sep-90
Jan-91
May-91
Aug-91
Oct-91
Feb-92
Jun-92
Oct-92
Feb-93
Jun-93
Oct-93
Feb-94
Jun-94
Sep-94
Jan-95
May-95
Sep-95
Jan-96
May-96
Sep-96
Jan-97
May-97
Sep-97
Jan-98
May-98
Sep-98

Fig. 5a: ^{226}Ra-total at W3

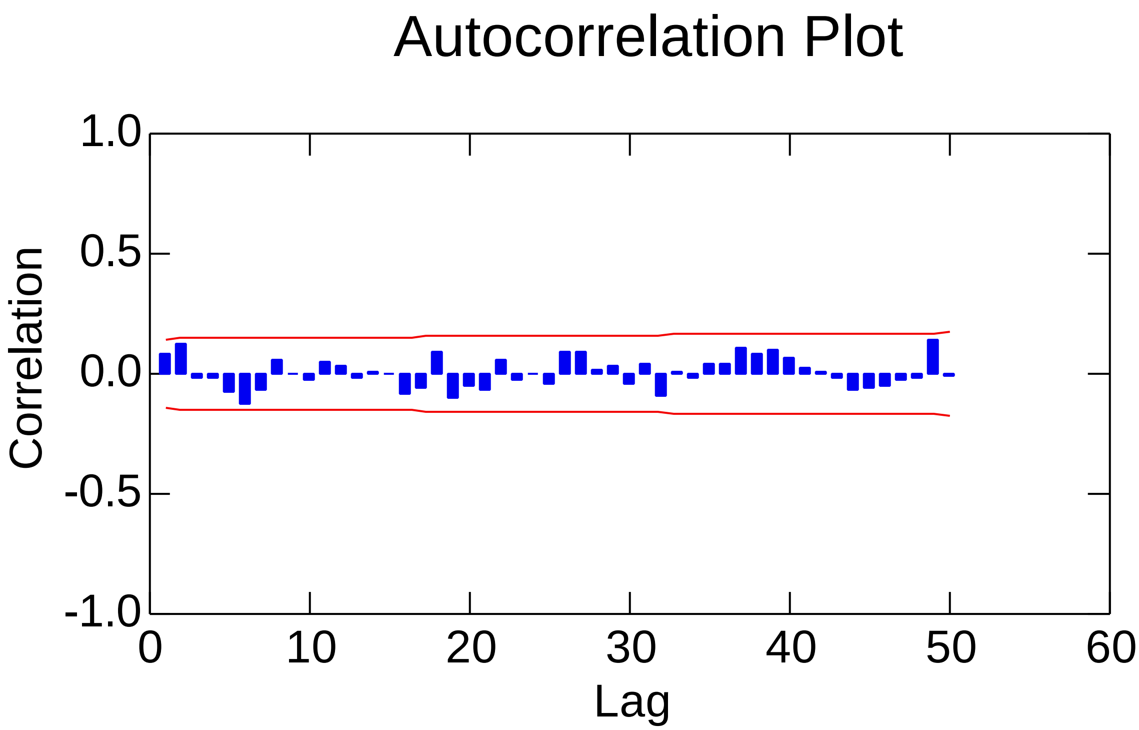


Fig. 5a: ^{226}Ra-total and pH at W3

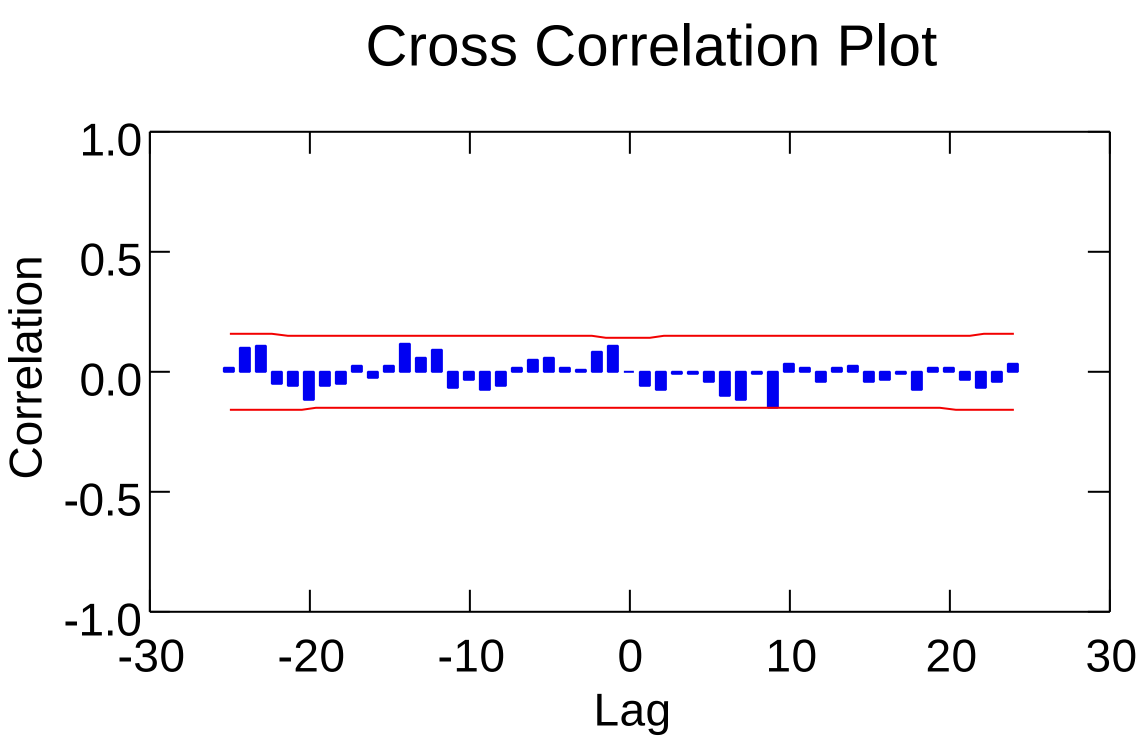


Fig. 5b: ^{226}Ra -total at W4

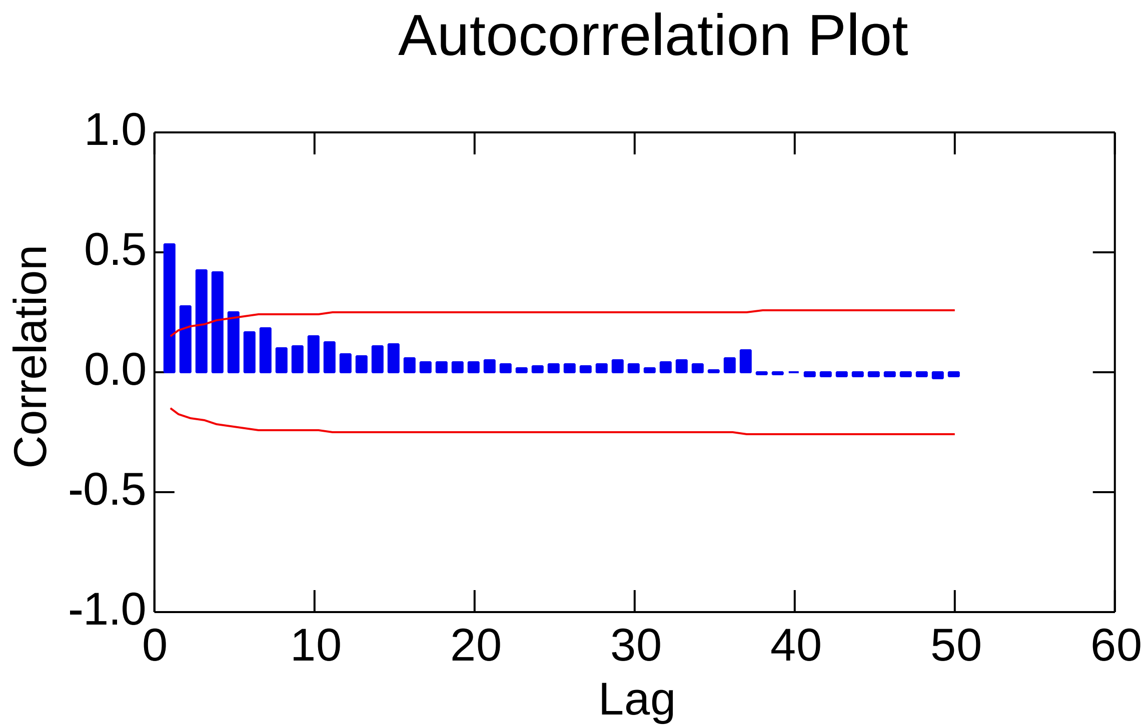


Fig. 5b: ^{226}Ra-total and pH at W4

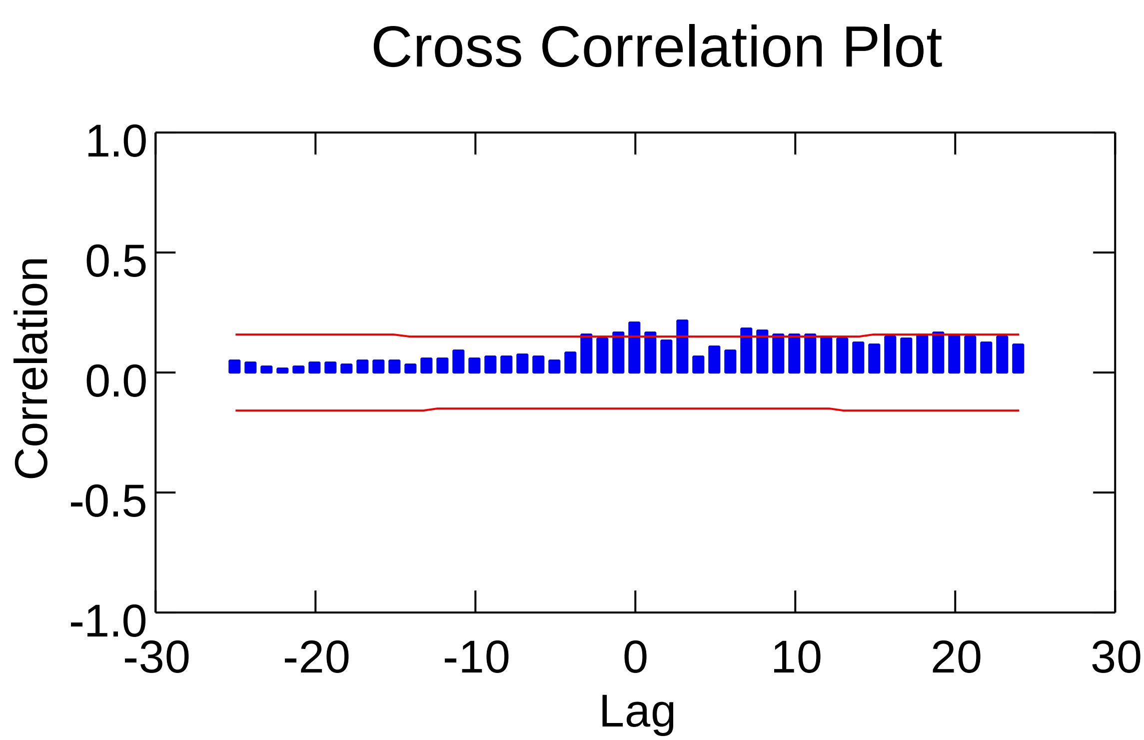


Fig. 5c: ^{226}Ra - total at W5

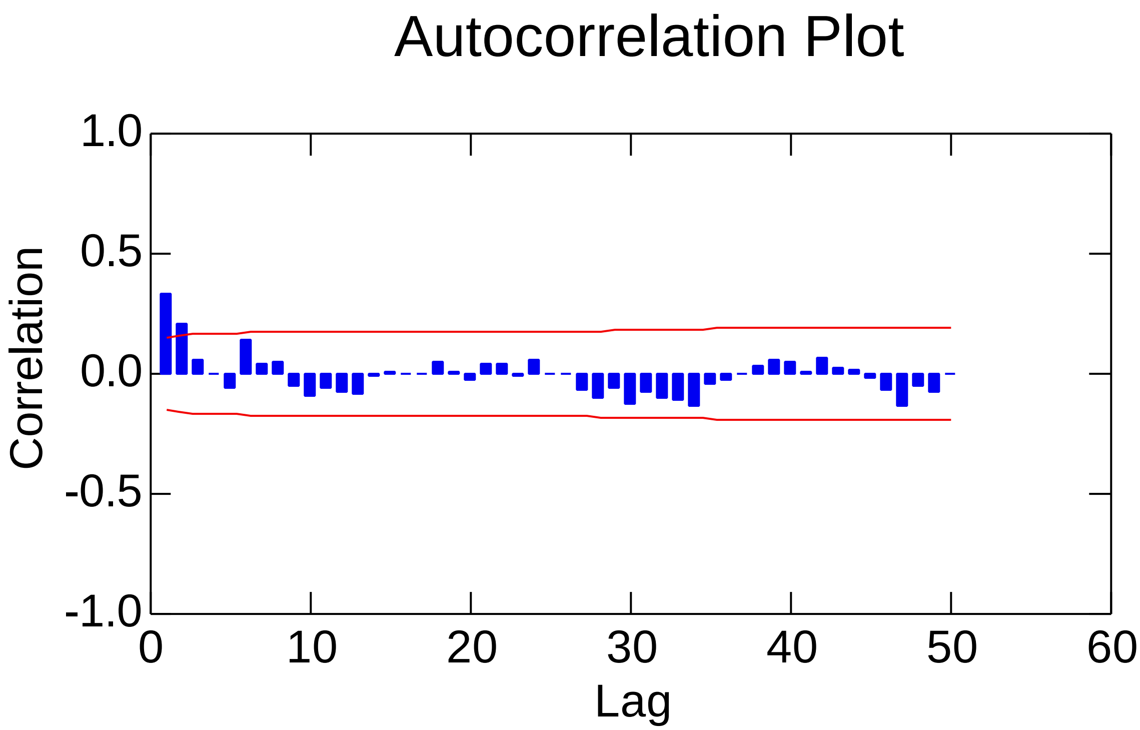


Fig. 5c: ^{226}Ra-total and pH at W5

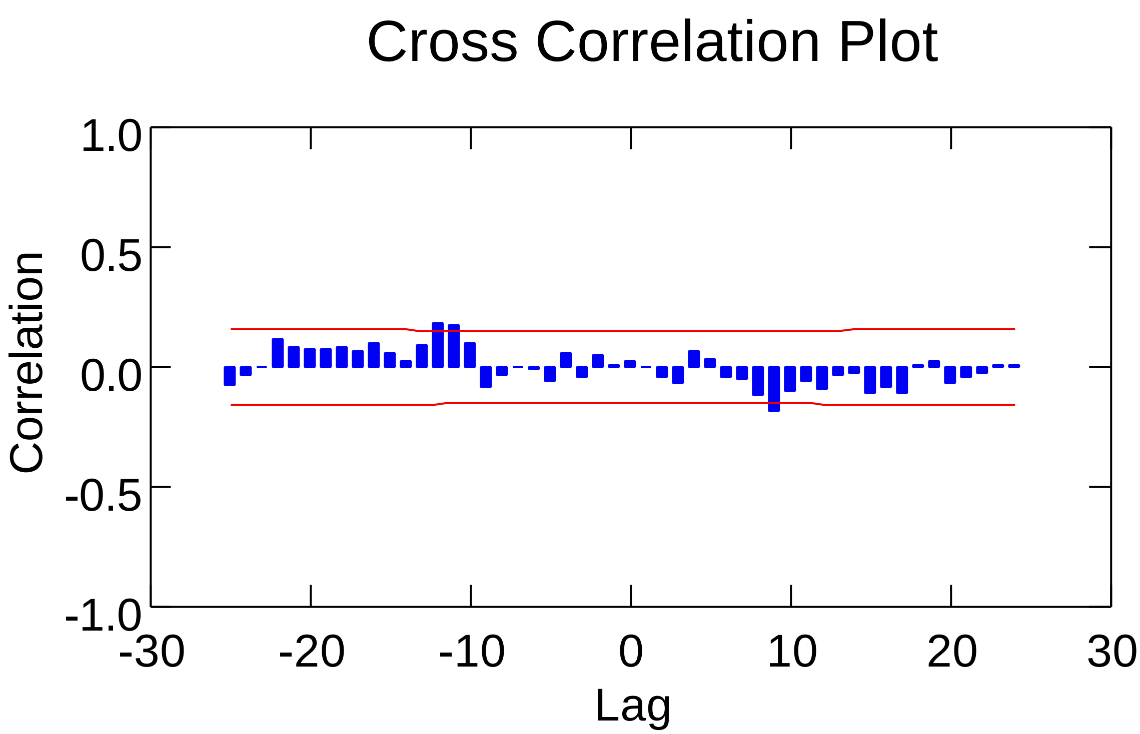


Fig. 5d: ^{226}Ra226-total at W9

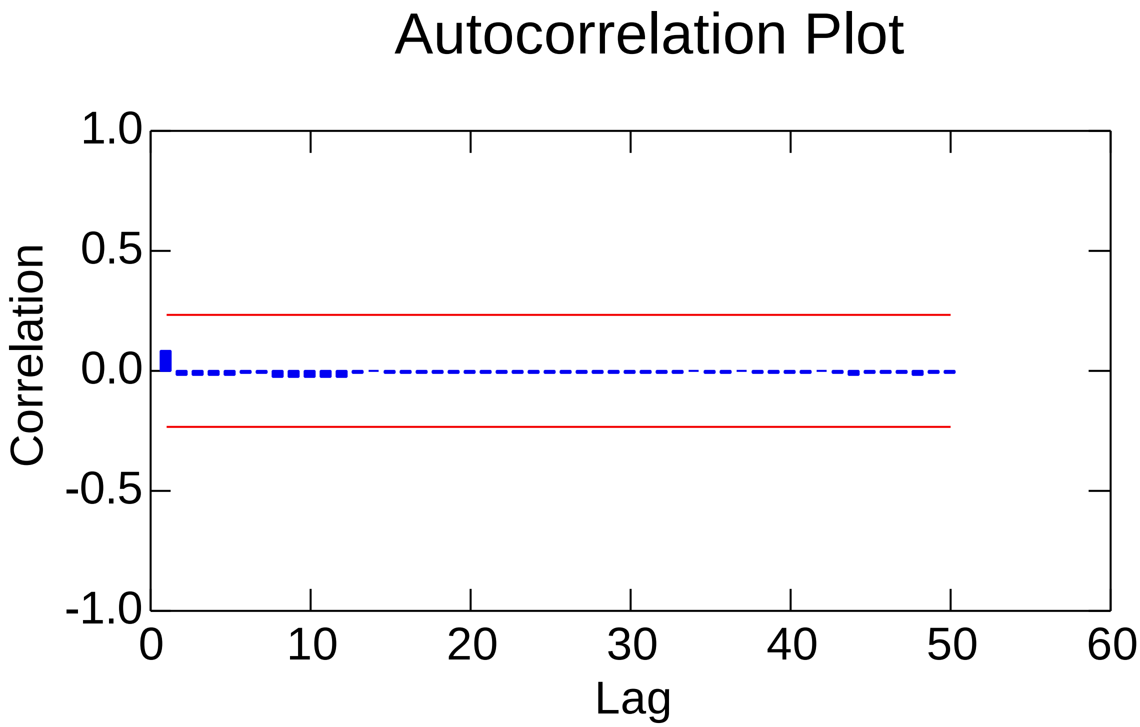


Fig. 5d: ^{226}Ra-total and pH at W9

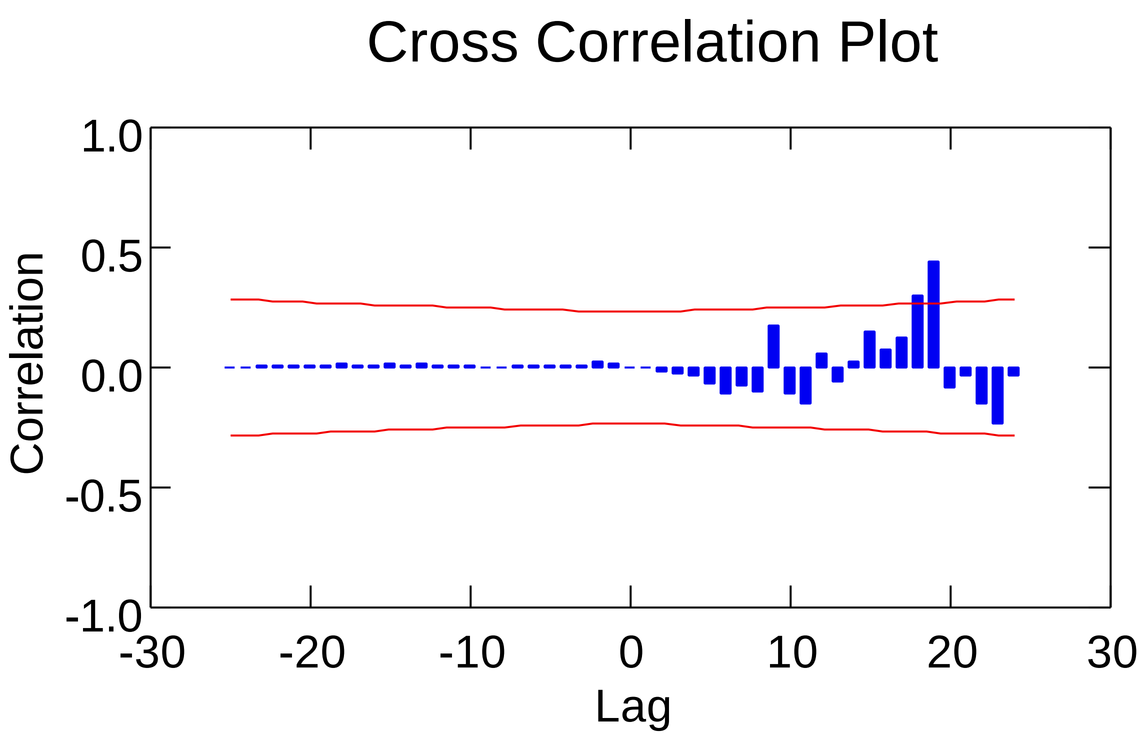


Fig. 5e: ^{226}Ra-total at W14

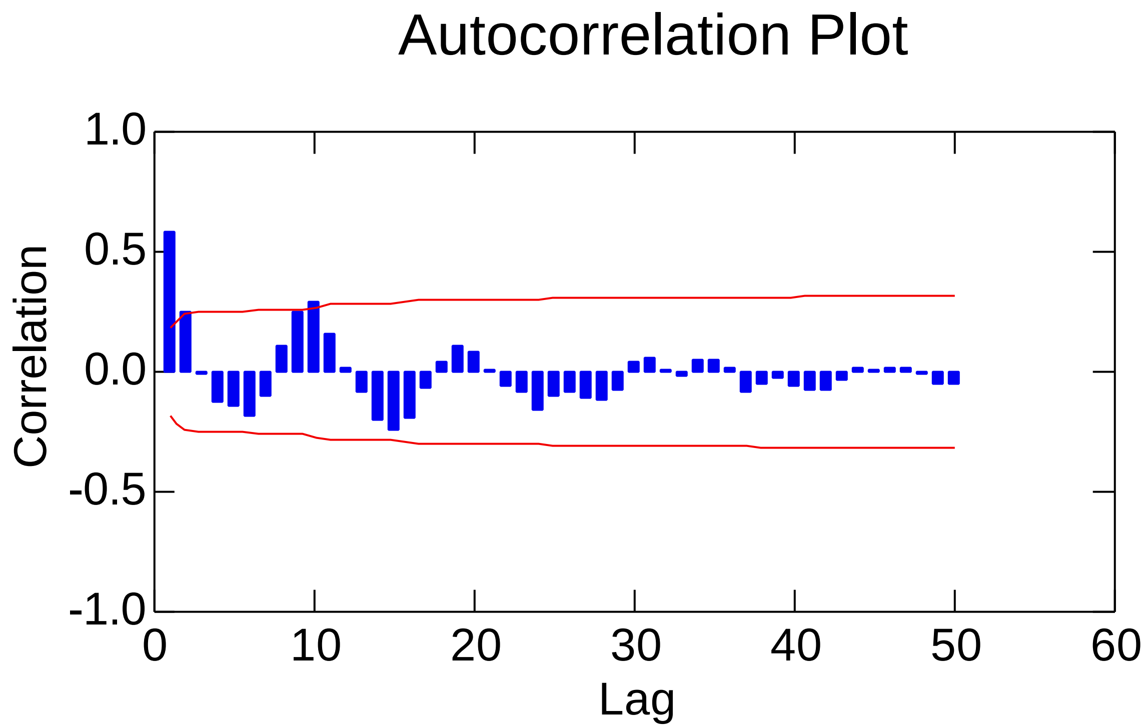


Fig. 5e: ^{226}Ra-total and pH at W14

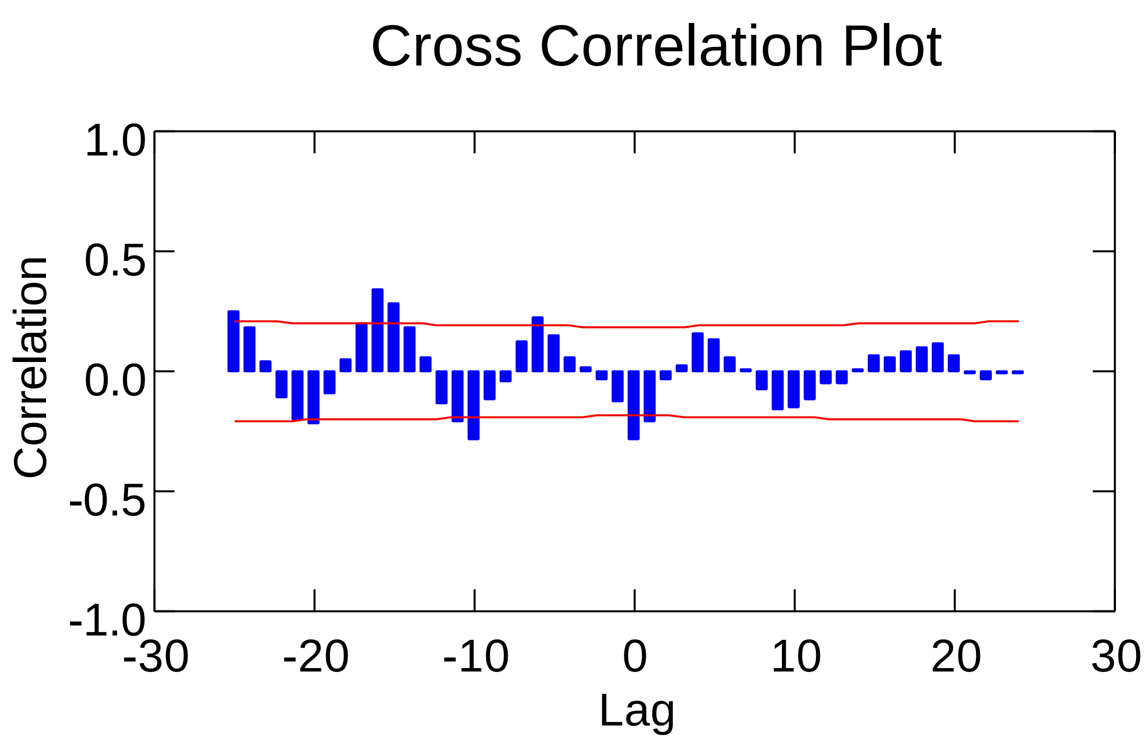


Fig. 5f: ^{226}Ra-total at W15

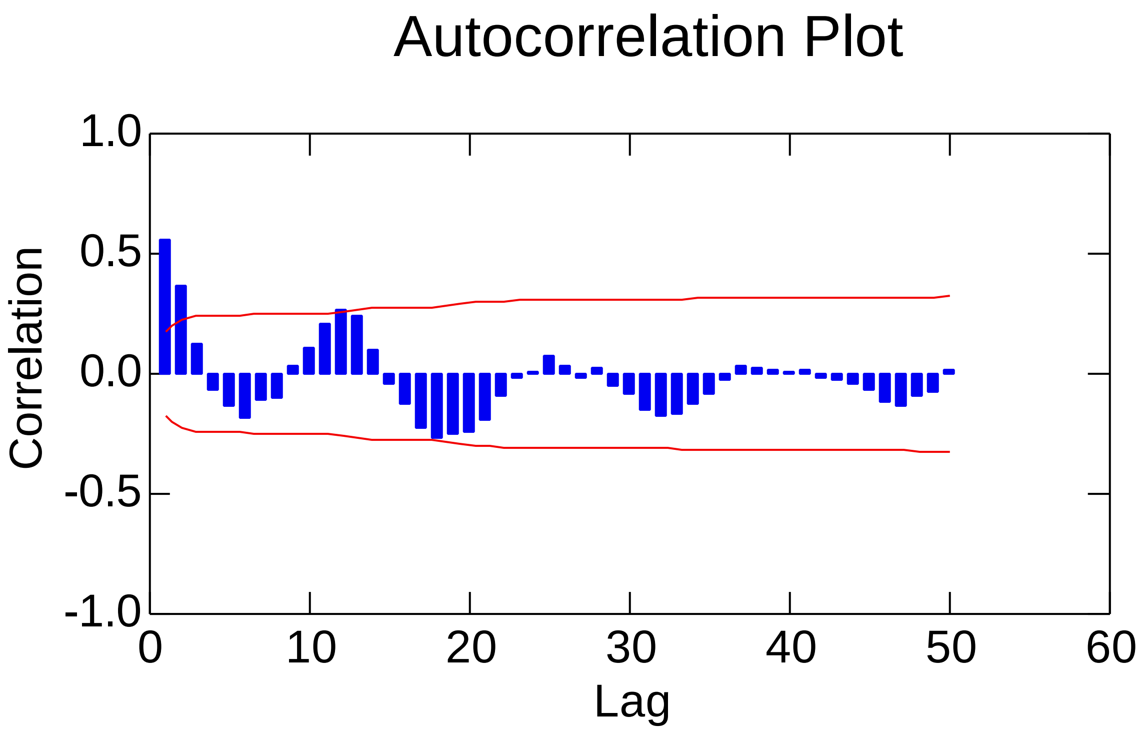


Fig. 5f: ^{226}Ra-total and pH at W15

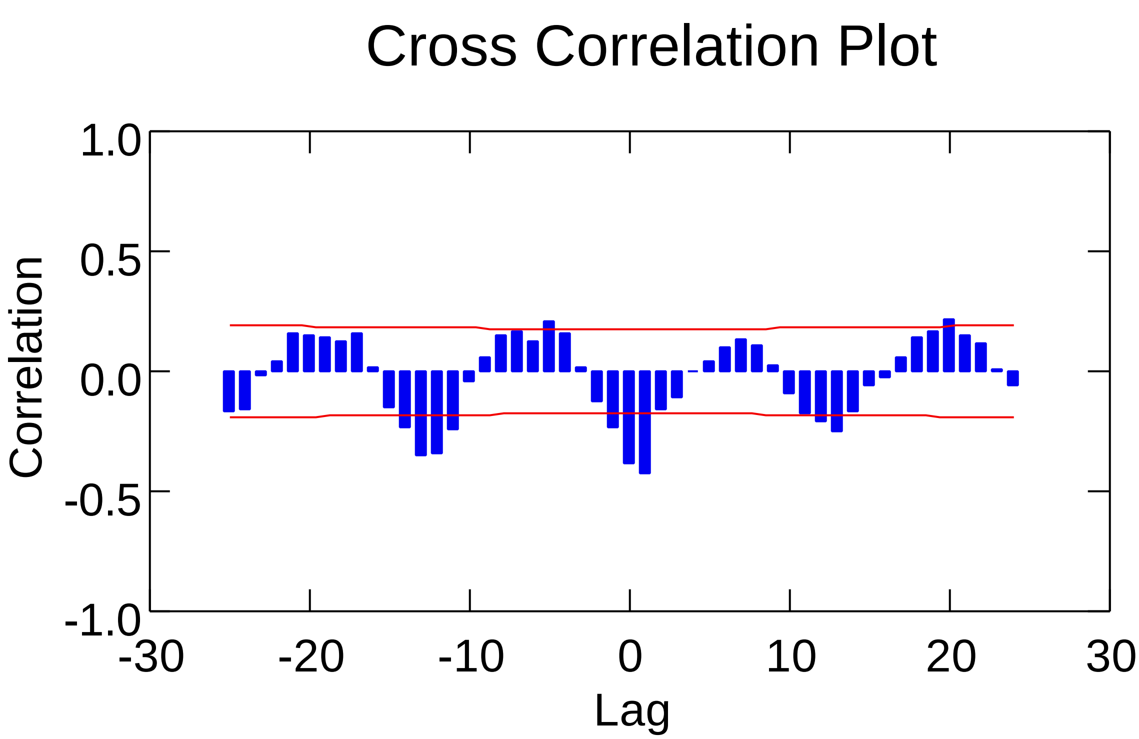


Fig. 5g: ^{226}Ra-total at W20

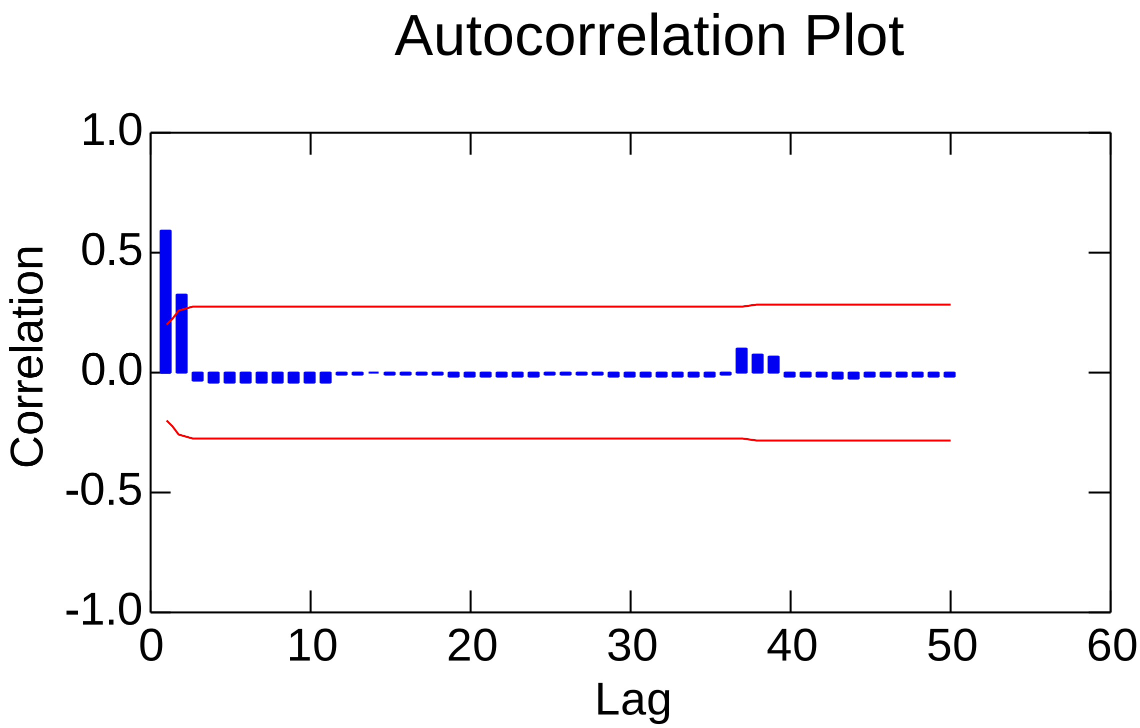


Fig. 5g: ^{226}Ra-total and pH at W20

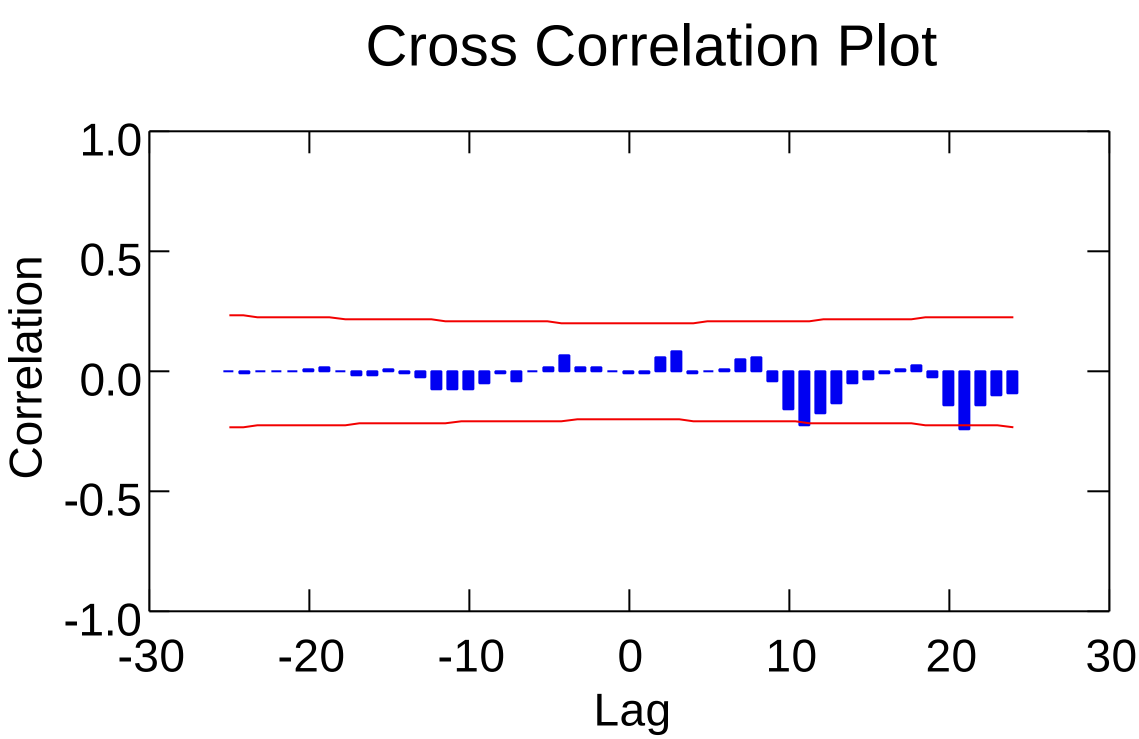


Fig. 5h: ^{226}Ra-total at W25

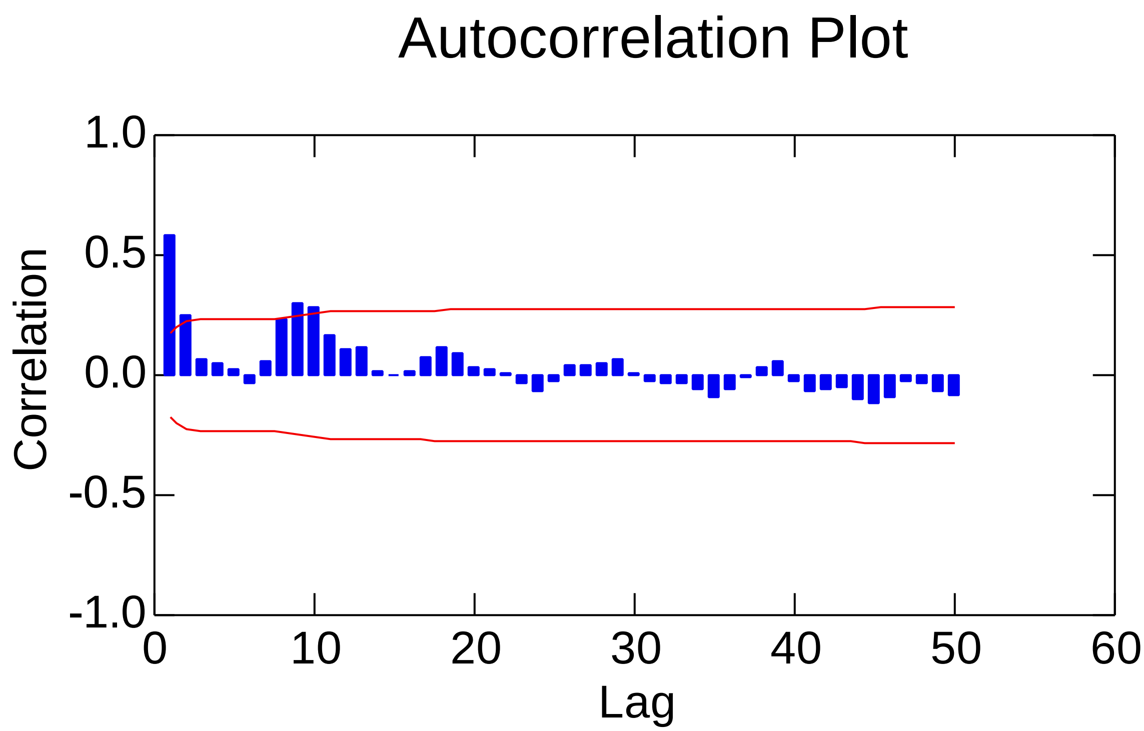


Fig. 5h: ^{226}Ra-total and pH at W25

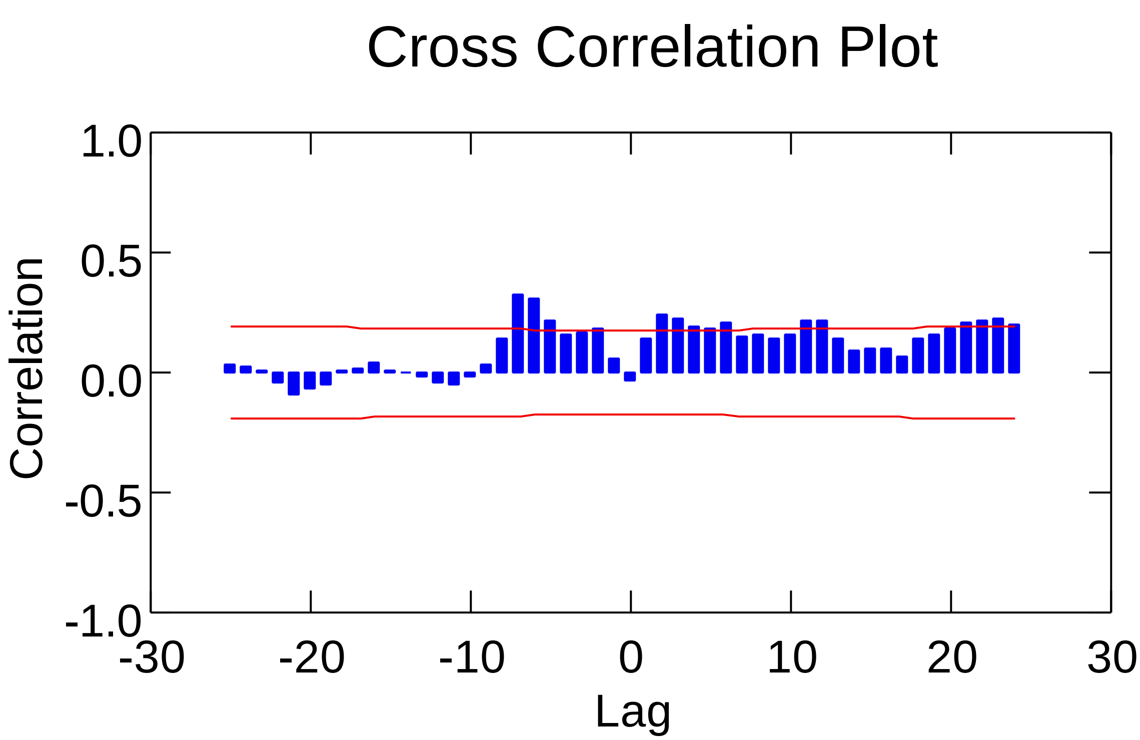


Fig. 6a: U-total at W3

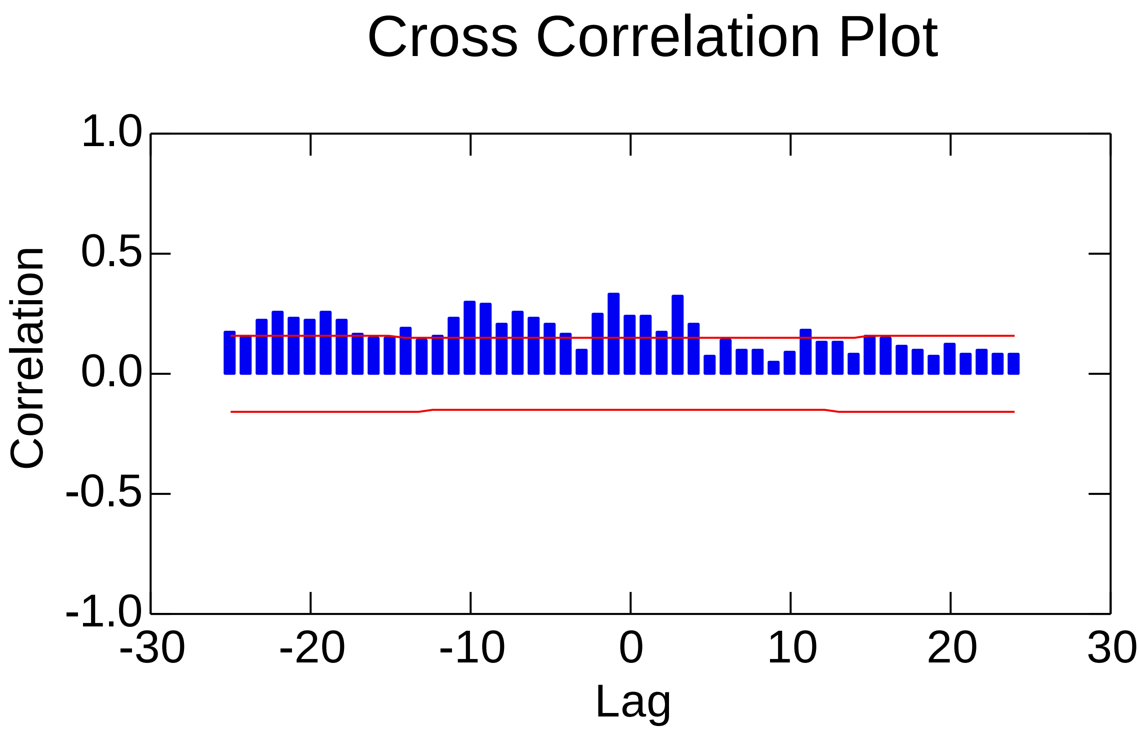


Fig. 6a: U-total and pH at W3

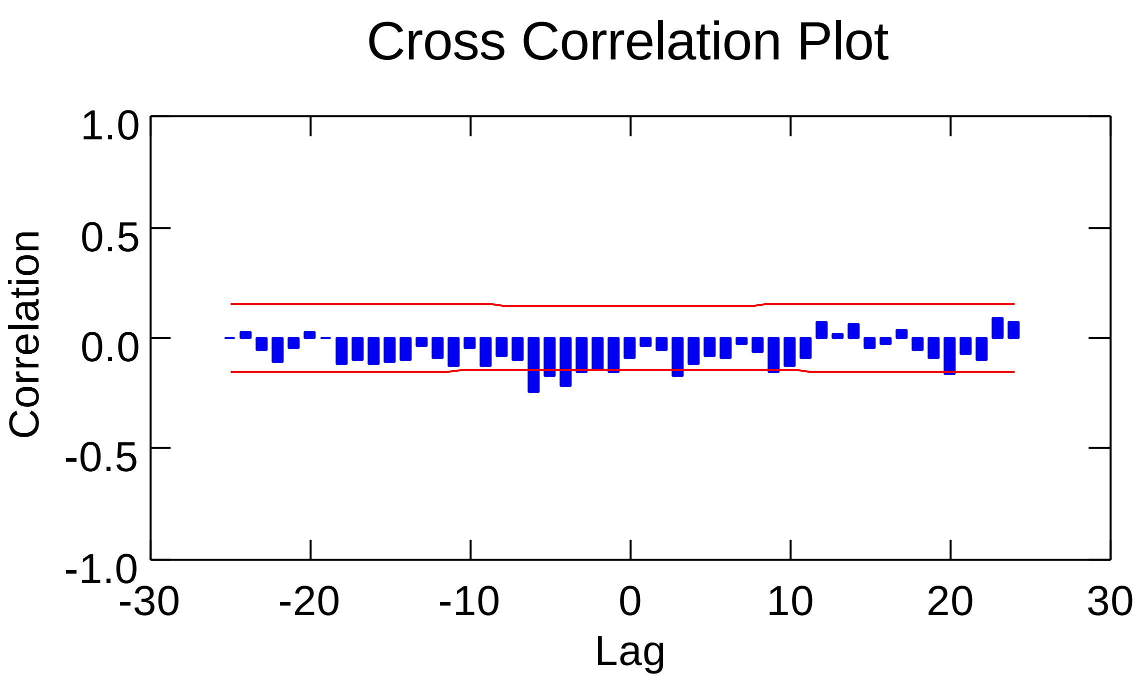


Fig. 6b: U-total at W4

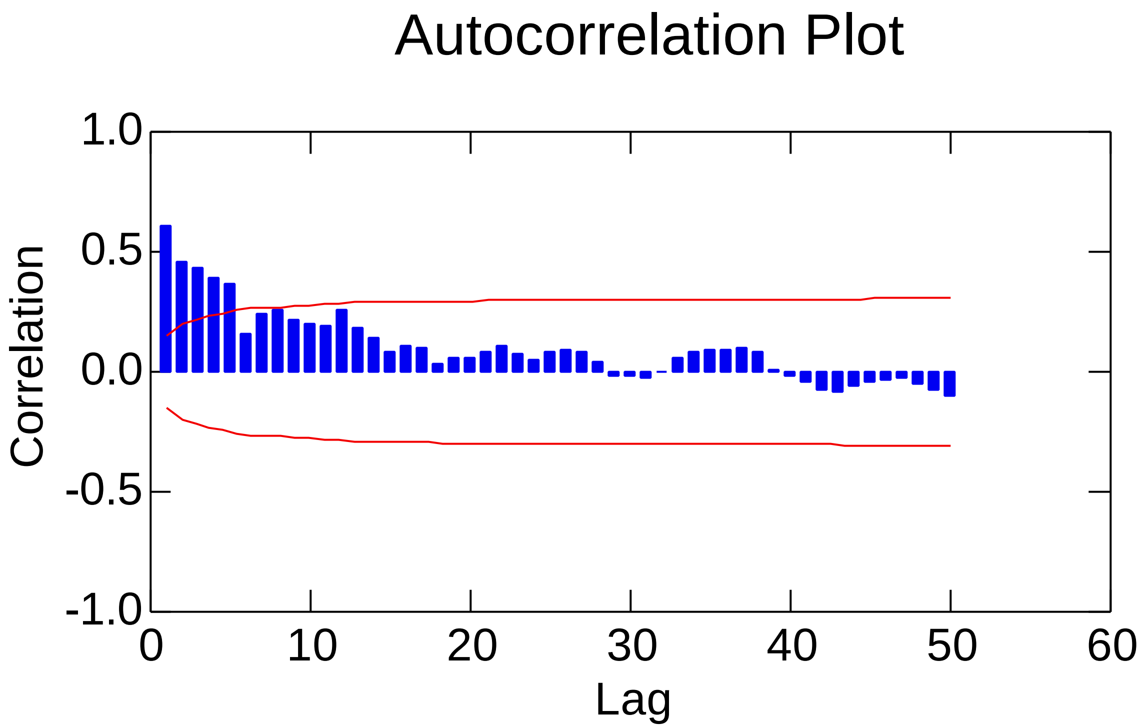


Fig. 6b: U-total and pH at W4

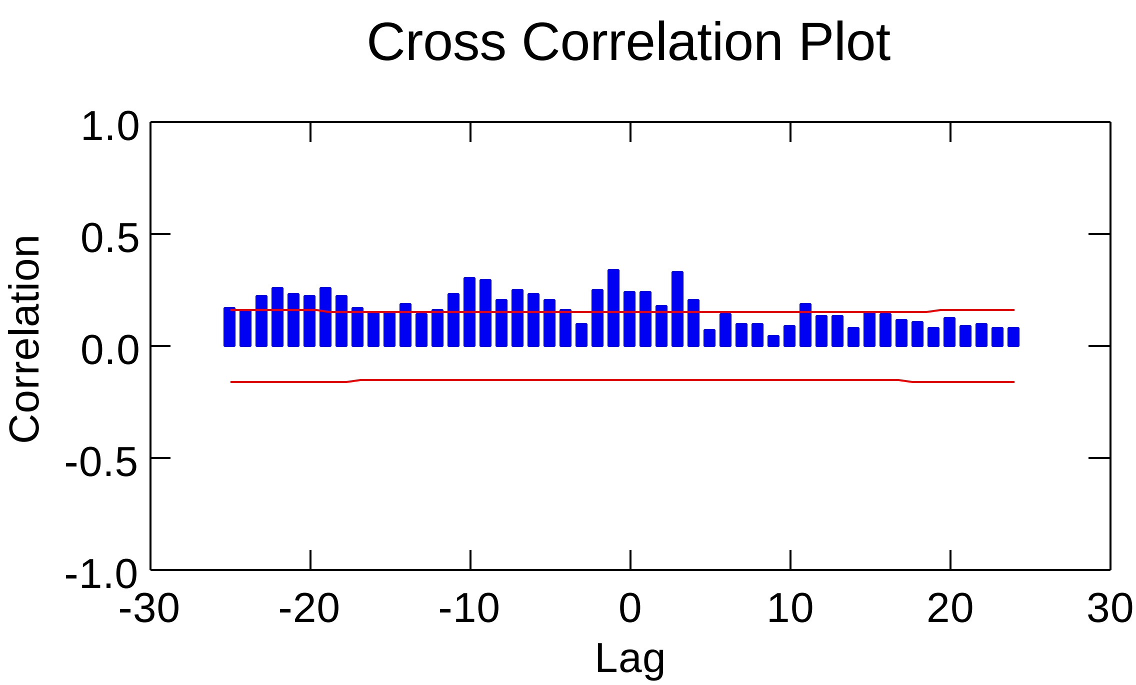


Fig. 6c: U-total at W5

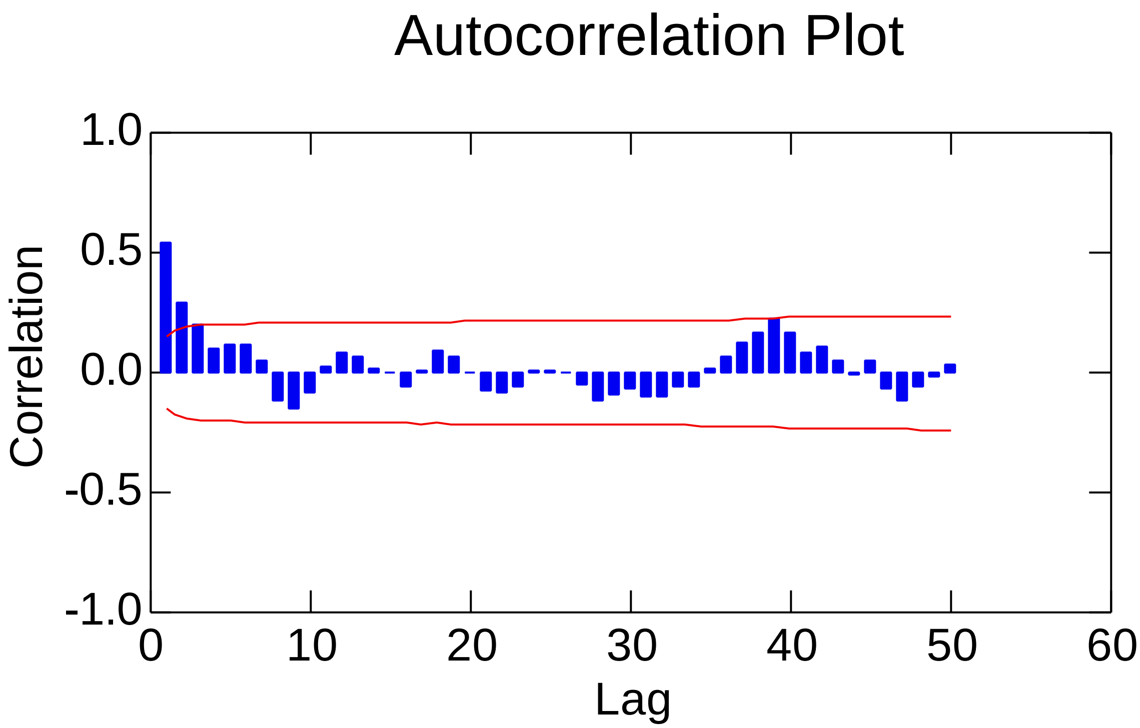


Fig. 6c: U-total and pH at W5

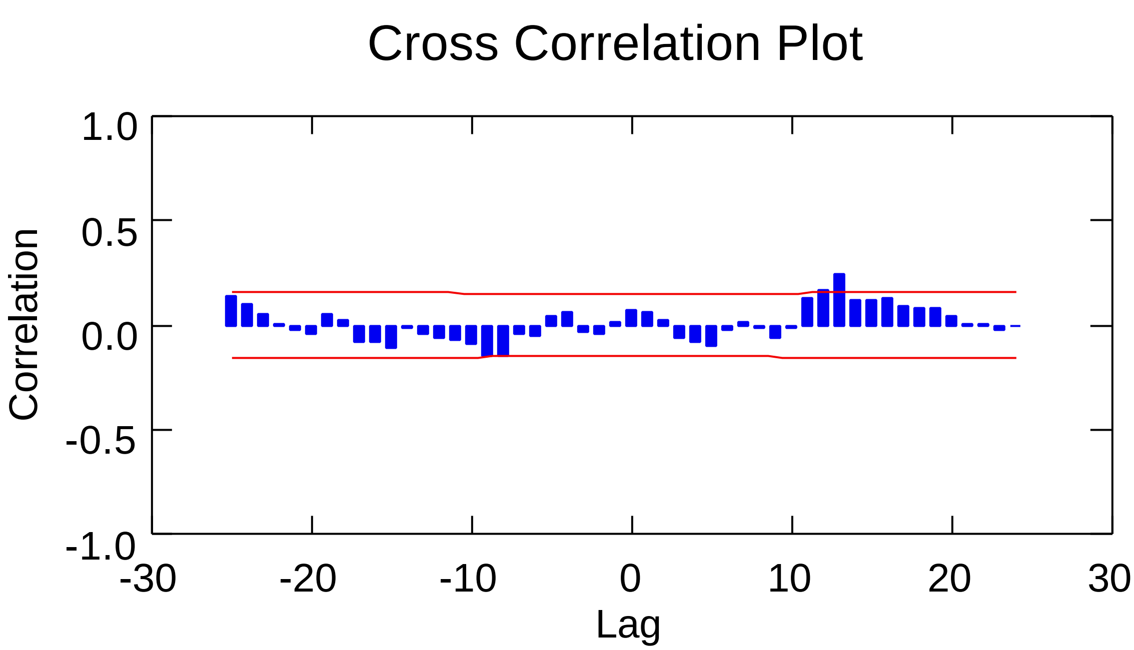


Fig. 6d: U-total at W9

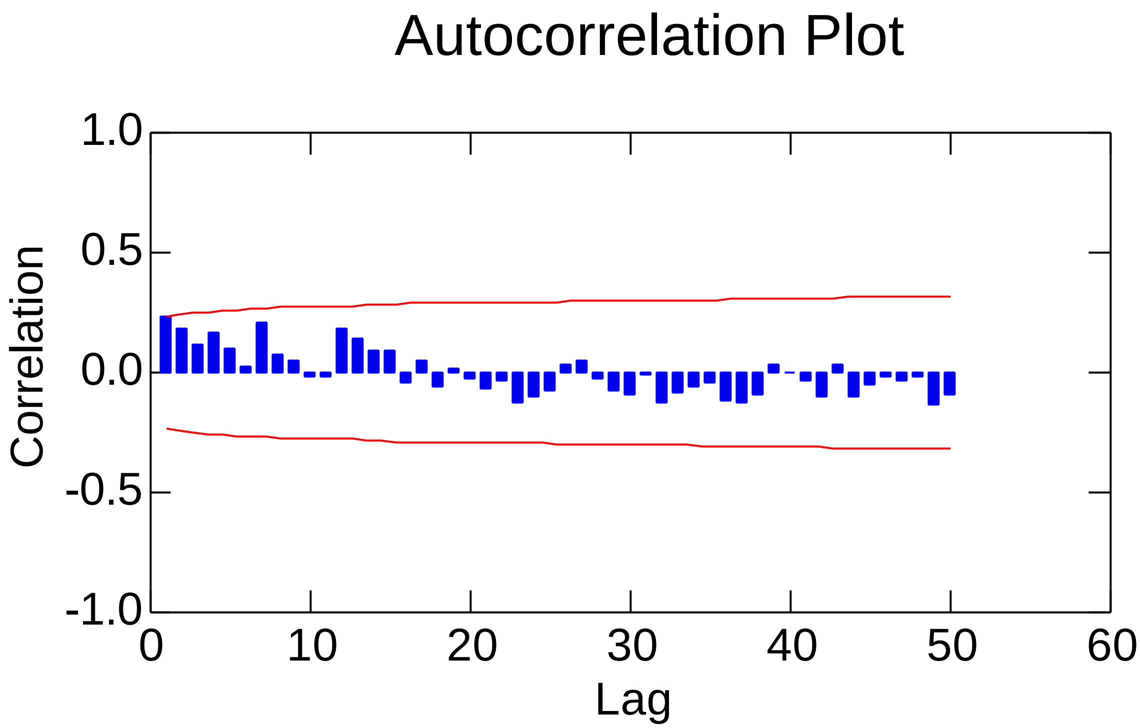


Fig. 6d: U-total and pH at W9

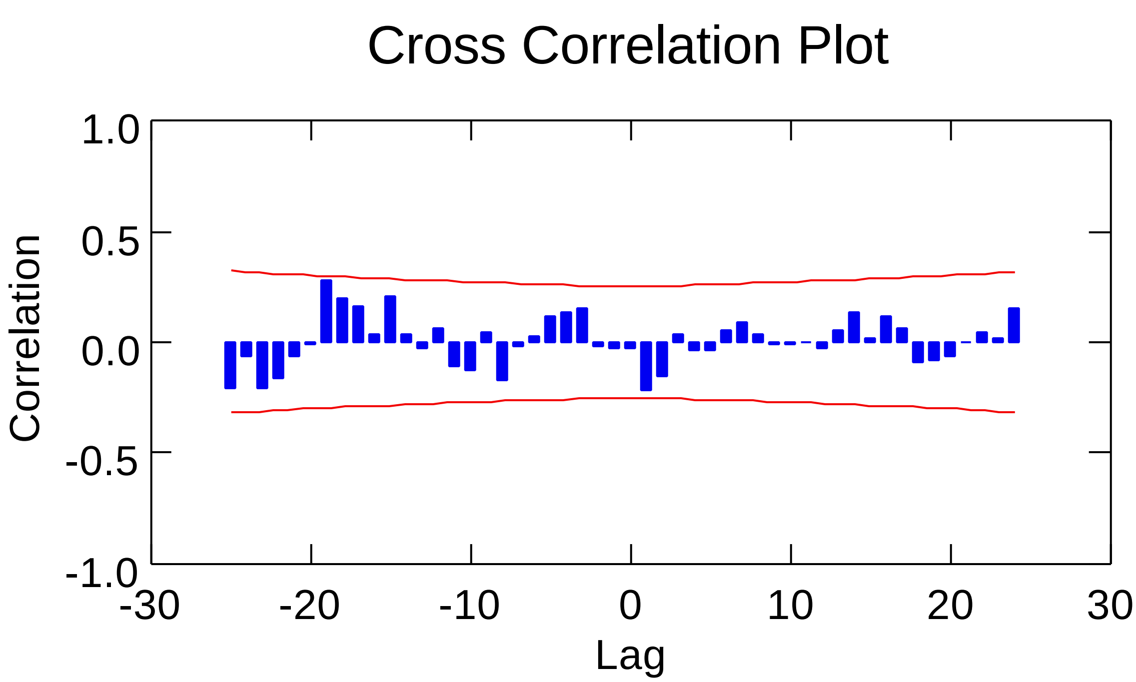


Fig. 6e: U-total at W14

Autocorrelation Plot

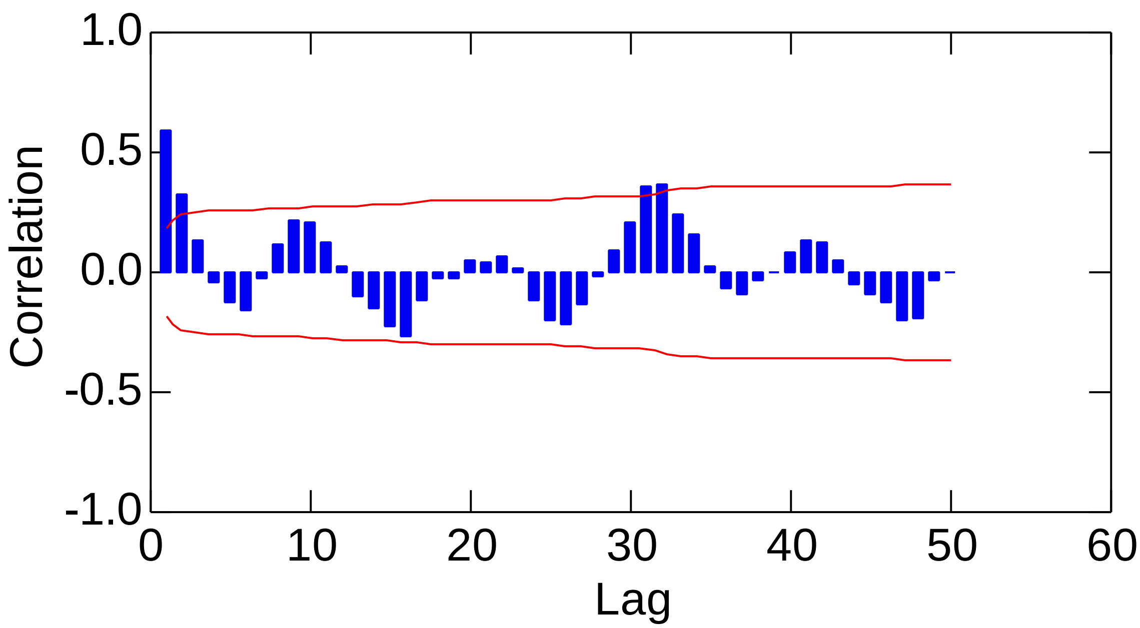


Fig. 6e: U-total and pH at W14

Cross Correlation Plot

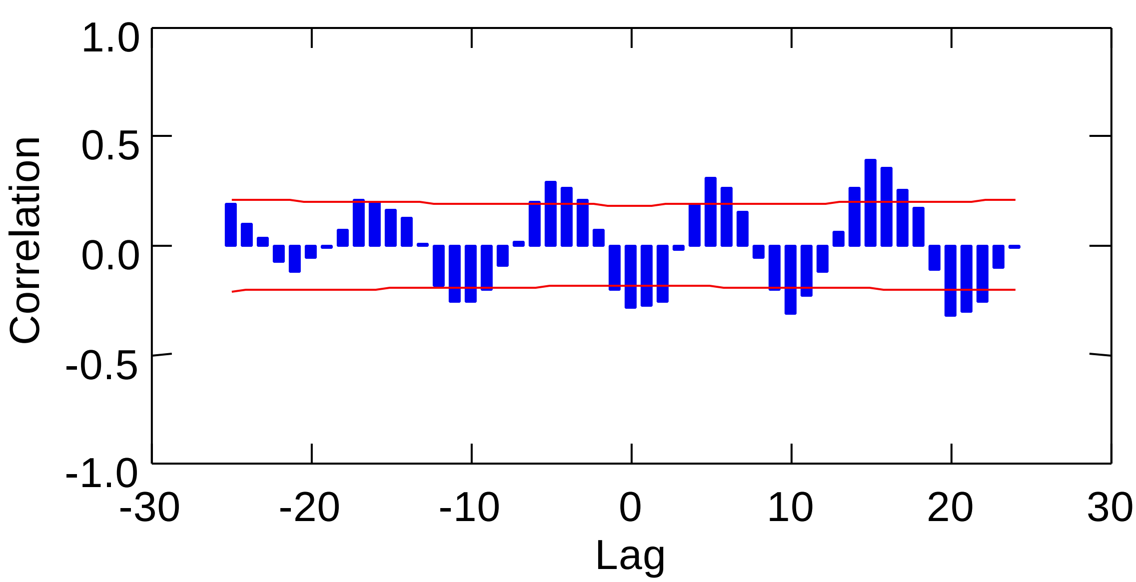


Fig. 6f: U-total at W15

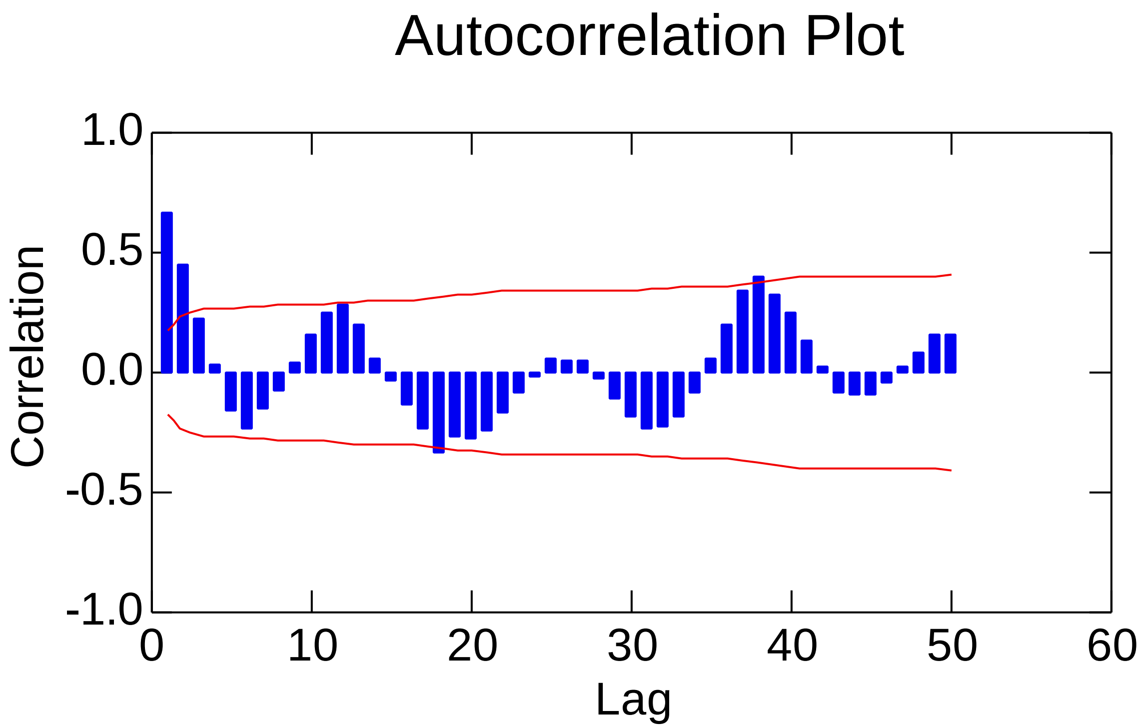


Fig. 6f: U-total and pH at W15

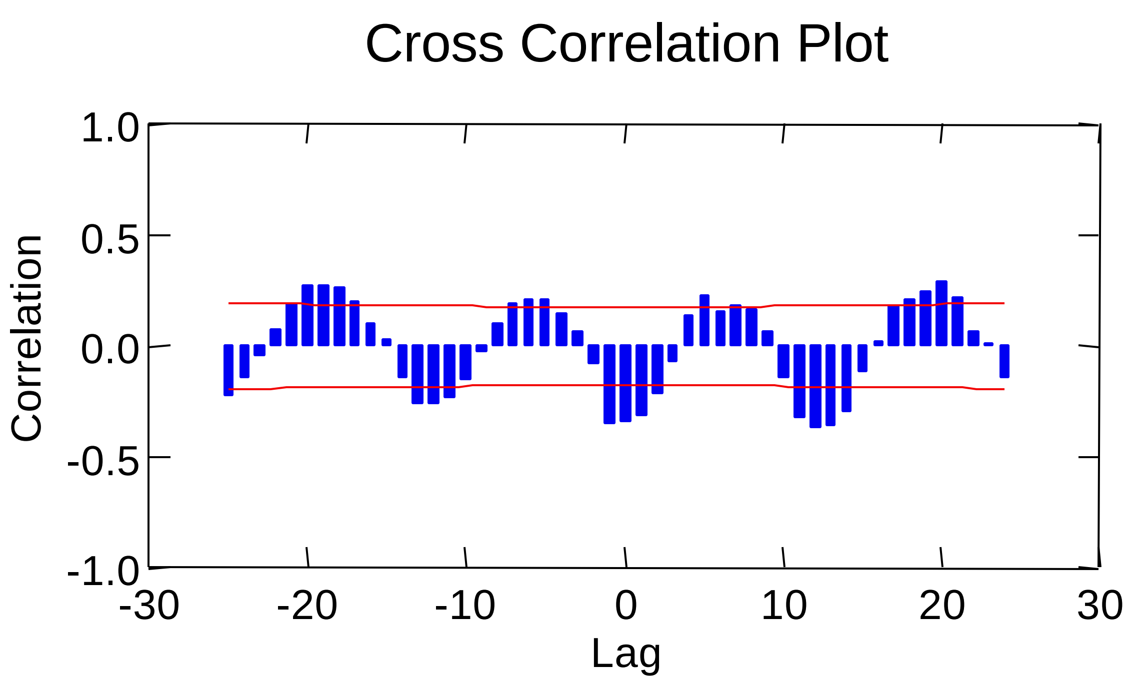


Fig. 6g: U-total at W20

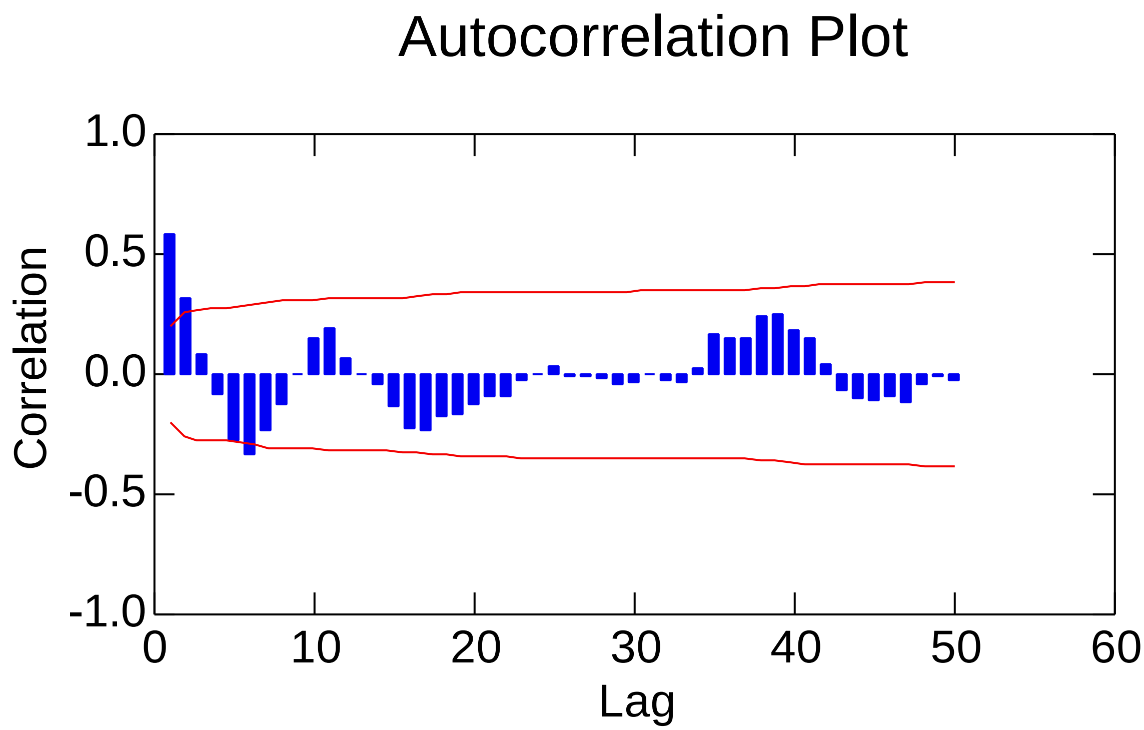


Fig. 6g: U-total and pH at W20

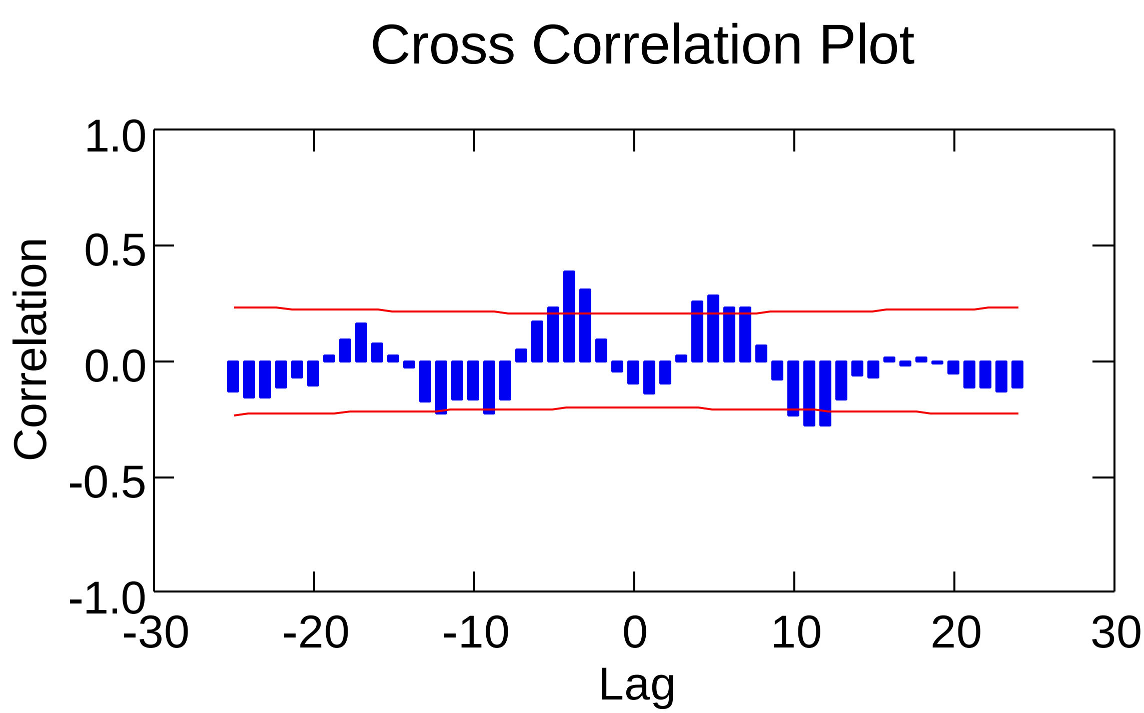


Fig. 6h: U-total at W25

Autocorrelation Plot

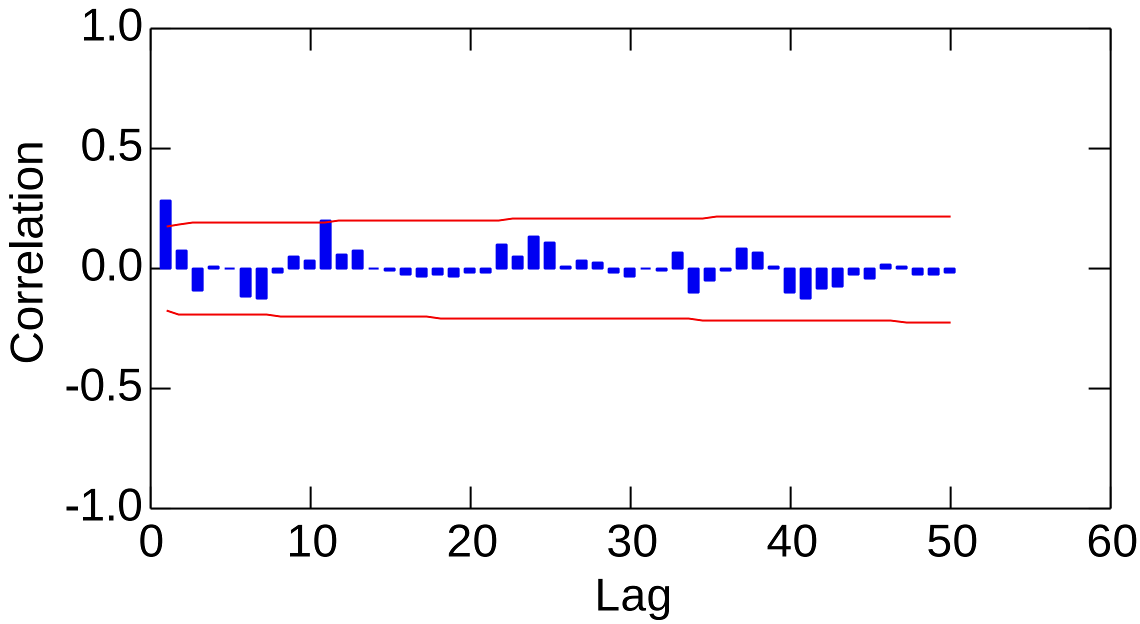
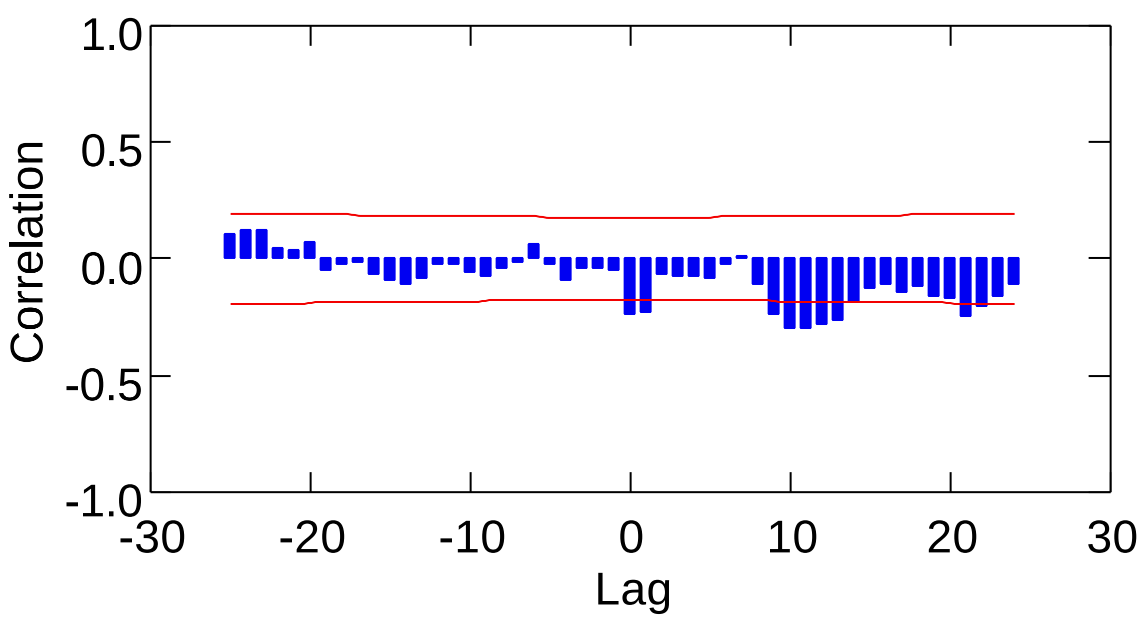


Fig. 6h: U-total and pH at W25

Cross Correlation Plot



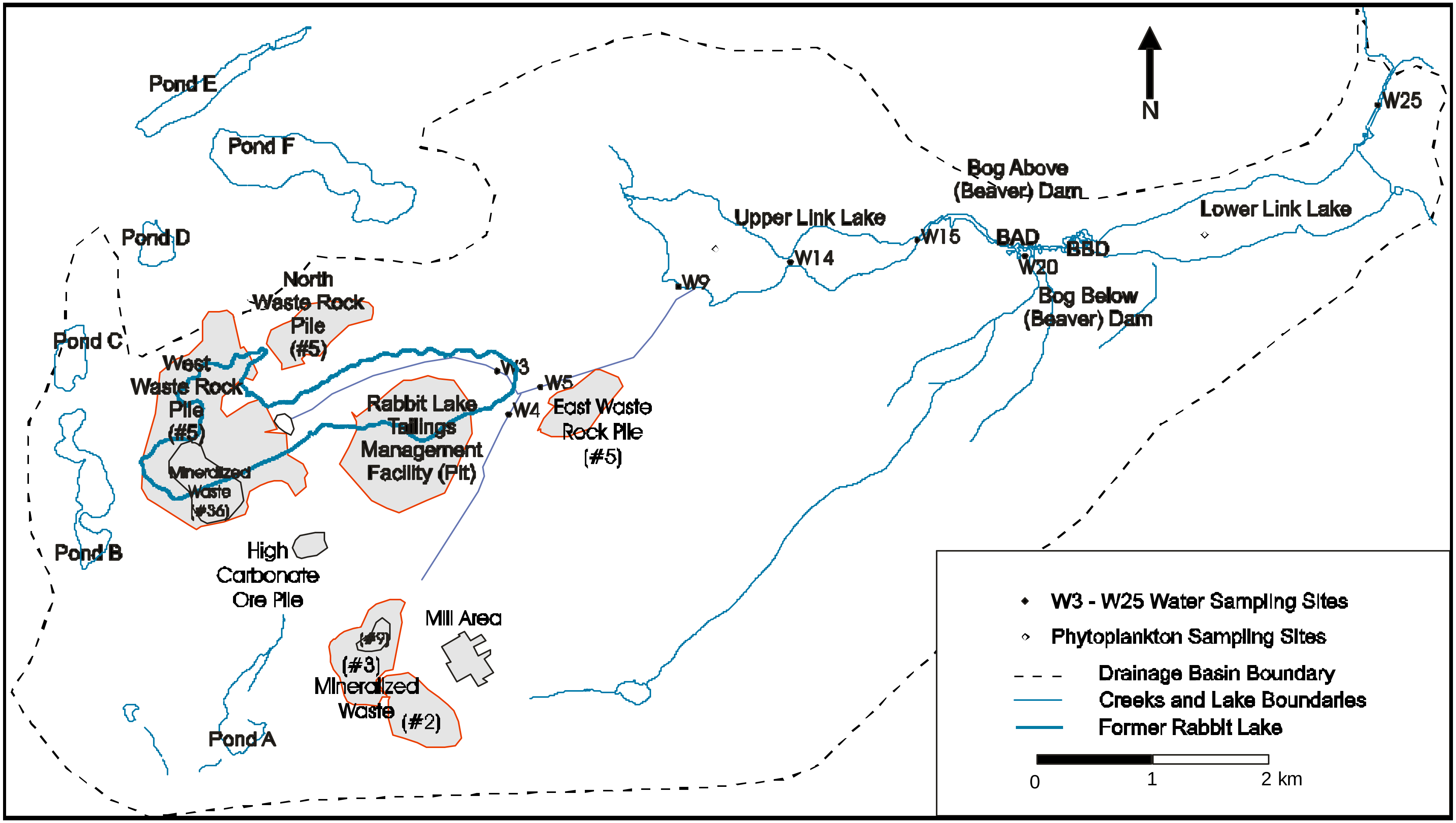


Fig. 7: Map of Rabbit Lake Drainage Basin